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14. ABSTRACT  The purpose of this study is to generate a genome-wide association profile of Methyl-CpG Domain-containing (MBD) proteins, such as MeCP2, MBD1, MBD2 and MBD4, in malignant prostate cancer cells and matched normal or benign prostate cells using Chromatin Immunoprecipitation followed by Next Generation Sequencing (ChIP-Seq). The preliminary ChIP-Seq results establish the proof-of-principle that ChIP-Seq can be performed using the limited amounts of material available from these clinical samples (biopsies). This is the most significant result to date because it suggests that this study will be able to generate novel databases identifying the genome-wide MBD association profiles using clinical samples. In addition, our preliminary ChIP-Seq results have identified interesting genes such as a histone demethylase, a tetrahydrofolate synthase and piR-61309 near the association sites of MBD family members. In parallel, RNA expression profiles from the same tissues were generated to allow comparison of differential patterns of gene expression with differential patterns of MBD protein association. Microarray analysis has been performed and has identified genes that are up-regulated and down-regulated by at least 2-fold in Stage 3 prostate cancer cells.					
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## **Introduction**

Tumors exhibit abnormal epigenetic regulation (1). A key epigenetic event is DNA methylation, typically at the dinucleotide CpG. Both hypomethylation and hypermethylation of DNA is observed in cancer cells. Generally, the former leads to activation of protooncogenes and the latter to repression of tumor suppressors during the initiation and progression of cancer. The Methyl-CpG-Binding Domain (MBD) family of proteins are among the ones that bind methylated DNA directly and this association is critical in regulating the outcome of DNA methylation (2,3). The MBD family includes proteins named MeCP2, MBD1, MBD2 and MBD4. (MBD3 contains the MBD but does not bind methylated DNA directly.) The molecular events leading from DNA methylation or demethylation to gene regulation during cancer progression are poorly defined. In this study, the binding of MBD proteins throughout the entire genome of several malignant prostate tumors and matched normal or benign tissues will be identified. This provides novel fundamental information about epigenetic regulation during carcinogenesis. Also, the differences in these patterns will identify new genes regulated by MBD binding and DNA methylation during prostate cancer progression. These genes potentially identify novel biomarkers or therapeutic targets. The identity of bound MBD protein will facilitate subsequent studies that examine the “downstream” molecular events at a specific gene during progression of prostate cancer.

## **Body**

The first task was performing the Chromatin Immunoprecipitations (ChIP) and Next Generation Sequencing (NGS). Five sets of matched malignant prostate carcinomas and normal/benign prostate tissues were obtained from the Cooperative Human Tissue Network. These tissues were divided into two portions. The larger portion was prepared for ChIPs using the truChIP Tissue Chromatin Shearing Kit (Covaris, Woburn, MA). Briefly, the tissues were minced, treated with formaldehyde and this reaction was quenched. The tissue was disrupted and the resulting cells were lysed. The nuclei were collected by centrifugation, then sonicated to lyse the

nuclei and shear the chromatin in an Adaptive Focused Acoustics sonicator (Covaris). (The smaller portion was used for isolation of mRNAs - see below.) Chromatin immunoprecipitations were carried out using antibodies that recognize MeCP2, MBD1, MBD2 and MBD4 and the ChIP-IT High Sensitivity Kit (Active Motif, Carlsbad, CA). The resulting "ChIP DNA" was quantified using a Qubit fluorometer (Life Technologies, Grand Island, NY), ethanol precipitated using linear acrylamide as a carrier and quantified at the end using the Qubit fluorometer. The amounts of ChIP DNA obtained made the next step, the preparation of libraries for Next-Generation Sequencing, technically challenging and required more time than allotted in the "Statement of Work". This delay led to the request and approval of a modest no-cost extension on the grant. The SeqPlex DNA Amplification Kit (Sigma, St Louis, MO) was used to generate the libraries for NGS. The NGS for some samples has been performed using the Ion Torrent (Life Technologies) and the remaining samples will be sequenced shortly. The bioinformatics analysis has been initiated but its completion will require additional sets of data.

The outcomes of the first task are dependent on completing the NGS and bioinformatics analysis. For one matched set of malignant and benign prostate tissues (called Sample #4), the preliminary results identifying the genomic binding sites of MeCP2 and MBD1 and genes near those sites are summarized in Table 1 (see Supporting Data). MBD2 ChIP-Seq data are available, but the analysis is not complete (data not shown). This initial NGS was performed on a smaller scale to ensure productive results before proceeding; additional NGS is being performed with the existing Sample #4 materials. The results, analysis and conclusions for two additional matched sets of tissues as well as more substantial results for Sample #4 will be generated shortly. Once the NGS is completed, an analysis of the aggregate set of results will also be generated. These results will allow the identification of changes that occur in the association of the MBD family of proteins during cancer progression.

The second task is identifying both genes that are differentially expressed in malignant prostate tissues and corresponding gene promoters that differentially

bound by MBD proteins in malignant prostate tissues. An mRNA fraction was isolated from each tissue using an RNeasy Kit and a Qiacube (Qiagen USA, Valencia, CA). (In addition, microRNA fractions have been isolated from two sets of matched tissues to expand this study to include microRNAs). Equal amounts of mRNA from three normal prostate tissues and from three stage 3 malignant prostate carcinomas, respectively, were mixed and assayed using an Affymetrix microarray. Using a pooled set of mRNAs provides an initial set of results that focuses on genes that are consistently increased or decreased between the two states. Genes of interest, namely their expression levels, will need to be validated by reverse transcriptase-quantitative PCR (RT-qPCR) using mRNAs from matched sets of tissues.

The outcome generated to date by the second task is a list of genes that are increased >2-fold and decreased >2-fold in the stage 3 prostate cancer tissue relative to normal tissue (see Tables 2 and 3 in Supporting Data). The threshold of 2-fold is arbitrary and gene lists using different thresholds can be generated easily. Pathway analysis of these gene lists using IPA software (Ingenuity, Redwood City, CA) has been initiated but is still preliminary. Pathway analysis will putatively identify pathways that are important to prostate cancer initiation and progression and lead to the formulation of hypotheses and experiments to test these conclusions.

Once the NGS is completed, genes that are both differentially bound by MBD proteins and differentially expressed in malignant prostate tumors will be identified. The expression level of these identified genes will be validated by performing RT-qPCR using mRNAs from matched sets of tissues. The delay involved in preparing samples for the Next-Generation Sequencing – see above – has also delayed this task. The additional time obtained via the no-cost extension should allow its completion.

The third task is the writing and submission of a manuscript. The delay involved in preparing samples for NGS – see above – has meant that this task has not been completed. The results described above will be used in this manuscript.

## **Key Research Accomplishments**

- Chromatin Immunoprecipitation using matched malignant and normal/benign prostate tissues were performed with antibodies directed against MeCP2, MBD1, MBD2 and MBD4 (methyl-CpG binding domain containing proteins)
- “ChIP DNA” from one set of matched tissues was used to make libraries and Next Generation Sequencing performed. This provides proof-of-principle for ChIP-Seq with the matched tissues and these antibodies.
- The analysis of NGS data was initiated. Differences in the MBD association profiles between matched tissues were observed. Genes near the binding sites of MBD proteins were identified.
- The DNA from other ChIPs will be sequenced shortly and the results will be analyzed.
- mRNAs has been isolated from each tissue. Small RNAs (miRNAs being of interest) have been isolated from some matched tissues.
- The mRNA from Stage 3 prostate cancer tissue and normal tissue was pooled, respectively, and analyzed using Affymetrix ST Human Gene 2.0 microarrays. The initial analysis identified genes that are up-regulated by  $\geq 2.0$ -fold and down-regulated by  $\geq 2.0$ -fold in malignant tissues – see Supporting Data. Pathway analysis has been initiated.

## **Reportable Outcomes**

At the present time, there are no reportable outcomes after one year of this “Exploration – Hypothesis Development” grant. In the future:

1. a manuscript is planned.
2. completion of NGS and subsequent analysis will generate a database of MBD-associated regions in malignant, benign and normal prostate tissues.
3. the results and conclusions generated from this study will be used to formulate hypotheses and experiments that will be the basis for future funding applications.

## Conclusions

The initial results of this high-throughput study have identified 1) genomic regions associated with MBD proteins via ChIP followed by Next-Generation Sequencing and 2) genes that are differentially regulated in Stage 3 prostate cancer and normal prostate tissues via Affymetrix microarrays. These results are preliminary because of the (addressed) difficulties and delay in generating the appropriate libraries for NGS. The NGS will be completed shortly and produce substantive conclusions regarding the genomic profile of the MBD proteins in several matched prostate tissues. As examples, our initial preliminary results from the ChIP-Seq identified the apparent lack of MBD1 near a tetrahydrofolate synthase gene and lack of MeCP2 near piRNA-61309 in malignant prostate cancer cells versus an association in benign cells. In contrast, MBD1 binding near a histone demethylase increases in malignant prostate cancer cells. (Note: MBD2 ChIP-Seq data is available, but is not shown because the analysis is not complete.)

The importance of the preliminary results in total is the “proof of principle” that this study will generate a genomic-wide profile of regions and gene promoters associated with MBD proteins using clinically relevant cancer tissues as starting material. Since these maps are being generated using matched malignant and normal/benign prostate cancer tissues, it will also be possible to identify how the profile of MBD proteins differs during cancer progression. Once these profiles are generated, they will identify specific genes as potentially involved in cancer progression and/or as biomarkers. The microarray results discussed above and subsequent RT-qPCR results will be used to validate correlations between MBD protein association and gene expression.

The results and conclusions of this study will identify genes that are differentially regulated in malignant prostate tissues using high throughput methods. These genes are potential biomarkers although their efficacy as biomarkers will need to be evaluated in future studies. This study's results and conclusions will also expand information about the gene products and pathways involved in progression of prostate cancer in a high throughput manner. This increased information will lead to

hypotheses and experiments to validate these gene products and pathways. A deeper understanding of cancer progression, in particular the specific gene products and pathways involved, enlarges the potential range of therapeutic targets. Furthermore, genes that are differentially regulated in malignant prostate tissues are potential biomarkers

## References

1. Rodríguez-Paredes M, and Esteller M. (2011). **Nat Med.** 17(3):330-9. *Cancer epigenetics reaches mainstream oncology.*
2. Bogdanovic O and Veenstra GJ (2009). **Chromosoma.** 118(5):549-565. *DNA methylation and methyl-CpG binding proteins: developmental requirements and function.*
3. Parry L and Clarke AR (2011). **Genes Cancer.** 2(6):618-630. *The Roles of the Methyl-CpG Binding Proteins in Cancer.*

## Appendices

No Appendices

## Supporting Data

Table 1. Genomic locations of associated MBD protein in benign and malignant prostate tissues and nearby genes (follows)

Table 2. Genes that are up-regulated more than 2-fold in Stage 3 prostate tumors (follows)

Table 3. Genes that are down-regulated more than 2-fold in Stage 3 prostate tumors (follows)

## Table 1: Association Sites for MeCP2 and MBD1

### MeCP2 Association Sites in Benign Prostate Tissue

Chromosome	Region	Label	Nearby Genes	Other comments
2	133028422	A001	Uronyl 2-sulfotransferase	
4	133034161	A002	Uronyl 2-sulfotransferase	
4	133421447	A003		
8	43092956	A004	centromere	
8	43095150	A005	centromere	
8	43096794	A006	centromere	
9	66971163	A007	piR-61309	
10	39092892	A008	centromere	
13	27904539	A009	Calcium sensing receptor	
13	28033940	A010	Calcium sensing receptor	multiple Txn Fac ChIPs
18	60653597	A011	Pleckstrin homology Protein Phosphatase	

### MeCP2 Association Sites in Malignant Prostate Tissue

Chromosome	Region	Label	Nearby Genes	Other comments
2	92321796	A012	centromere	
2	133028408	A013	same as A001 above	
8	43092956	A014	same as A004 above	
10	20058581	A015	Histone demethylase	
X	61761951	A016	centromere	

### MBD1 Association Sites in Benign Prostate Tissue

Chromosome	Region	Label	Nearby Genes	Other comments
2	1330284	A017	same as A001 above	
8	43092965	A018	same as A004 above	
8	43095003	A019	similar to A004-6 above	
8	43096704	A020	similar to A004-6 above	
9	66971162	A021	Tetrahydrofolate synthase and piRNA	

### MBD1 Association Sites in Malignant Prostate Tissue

Chromosome	Region	Label	Nearby Genes	Other comments
1	202609920	A022	synaptotagmin-2	multiple Txn Fac ChIPs
2	133028450	A023	same as A001 above	
10	98561464	A024		multiple Txn Fac ChIPs
16	33955246	A025	centromere	
16	33958301	A026	centromere	

TABLE 2: Genes up-regulated in Stage 3 Prostate Cancer

Probe ID	Stage 3	Normal	GeneAccession	Gene Symbol	mRNA Accession	Fold Increase
16888999	582.4666	13.2632	---	---	TCONS_I2_0001	43.91596001
16797447	101.4443	2.81261	BC073766	IGHV4-31	BC073766	36.06769944
16900148	291.9534	9.17729	ENST0000048481	IGKV2-24	ENST0000048481	31.81258351
16734799	559.6259	17.6337	---	---	ENST00000357	31.73610461
16882744	226.7969	8.43171	ENST0000045318	IGKV1D-27	ENST0000045318	26.89808428
17092187	1071.185	42.6476	NM_006911	RLN1	NM_006911	25.11712854
16877453	139.4926	6.79325	---	---	ENST00000421	20.53399462
16927869	253.0766	15.1123	ENST0000039033	IGLC7 // IGL	ENST0000039033	16.7463543
16994426	43.19071	2.90542	---	---	---	14.8655804
16906620	934.7865	64.4569	NM_016192	TMEFF2	NM_016192	14.50250027
17086067	713.7975	50.5516	NR_015342	PCA3	NR_015342	14.12016504
16797494	113.5486	8.53564	ENST0000039060	IGHV3-23 //	ENST0000039060	13.30288686
16987773	59.76891	4.57236	---	---	---	13.07178569
16734793	736.5161	61.2429	NM_030774	OR51E2	NM_030774	12.0261526
16900152	68.56734	5.88263	---	---	AY510106	11.65590277
16994424	45.59653	3.9256	---	---	---	11.61516587
16713395	44.09912	3.8074	---	---	---	11.58247319
16870453	400.378	36.6231	NM_000095	COMP	NM_000095	10.93240459
16721212	70.11575	6.46355	NM_001004753	OR51F2	NM_001004753	10.8478683
16797415	1435.142	136.309	BC092449	IGHA1	BC092449	10.52856223
16797583	53.47449	5.19404	AF067420	IGHA1	AF067420	10.29535187
16882750	203.5067	20.8347	ENST0000046269	IGKV2D-24	ENST0000046269	9.767671464
16986655	295.422	30.5889	NM_003248	THBS4	NM_003248	9.657817051
16797512	172.9989	18.1594	ENST0000043814	IGHV4-31	ENST0000043814	9.526706888
16797587	41.84327	4.42816	AK097017 // AKC	IGHA1 // IGH	AK097017	9.449366734
16797389	807.075	85.6432	---	---	AY172958	9.42368818
16927853	1388.054	147.93	---	---	AY172962	9.383181234
16927834	698.1865	75.5693	---	---	ENST000003850	9.239019322
16818443	479.6125	51.9562	---	---	TCONS_I2_0001	9.231098058
16900098	561.5751	60.9755	BC016380	IGK@	BC016380	9.209851239
17095887	141.7376	15.7169	NM_017680	ASPN	NM_017680	9.018142208
16721210	54.4311	6.12543	---	---	ENST00000365	8.886080562
16900104	189.546	21.9098	ENST0000046416	IGKV1-6 // I	ENST0000046416	8.651209027
16923068	253.2604	29.5595	---	---	TCONS_000290	8.567817453
16797371	313.0038	37.6674	AK125238	IGHA1	AK125238	8.309666999
17000168	664.37	80.7914	NM_004887	CXCL14	NM_004887	8.223274204
16797516	768.5807	96.3621	Y14737 // Y1473	IGHM // IGH	Y14737	7.975961306
16927858	1583.615	199.798	BC030984	IGLV1-44	BC030984	7.926100176
16976644	277.1924	35.2967	NM_144646	IGJ	NM_144646	7.853210073
16797403	431.224	55.1977	---	---	AY510104	7.812360162
16905600	215.332	27.6004	NM_133378	TTN	NM_133378	7.801776642
17011886	30.68319	3.94657	---	---	TCONS_000119	7.774657202
17052737	236.6025	30.8979	NM_002652	PIP	NM_002652	7.657559252
16797336	1011.111	137.856	---	---	BC065733	7.334534101
16709458	62.47979	8.59147	NM_198795	TDRD1	NM_198795	7.272303279
16927785	644.8411	89.7019	---	---	ENST000003850	7.188714126
16771434	345.3532	48.3531	---	---	---	7.142316182
16797479	208.7004	30.5188	---	---	AK289373	6.838423148

TABLE 2: Genes up-regulated in Stage 3 Prostate Cancer

16900096	903.503	132.689	BC032451	IGK@	BC032451	6.809198379
16797690	29.51886	4.3362	---	---	---	6.807538025
16983765	307.1956	46.5068	NM_000908	NPR3	NM_000908	6.60539246
17056833	492.772	75.8418	---	---	AF085845	6.497369457
16900132	989.4561	156.082	ENST0000047998	IGKV1-16	ENST0000047998	6.339335093
16805899	84.82558	13.7971	NR_024387	CXADRP2	NR_024387	6.148064234
17049676	245.1839	40.3748	NM_000602	SERPINE1	NM_000602	6.072691823
16907831	255.7697	42.375	NM_079420	MYL1	NM_079420	6.035863127
16798951	232.3069	38.7016	NM_013372	GREM1	NM_013372	6.002520312
16797409	411.3531	68.8531	AK090461	IGHD	AK090461	5.974358453
16854408	119.953	20.2775	NR_024259	LOC728606	NR_024259	5.915574363
16889743	44.3531	7.52407				5.894826631
16900100	43.68627	7.48967	ENST0000049616	IGKV1-5 // IGK	ENST0000049616	5.832872921
16800630	69.86362	12.0546	NM_032413	C15orf48	NM_032413	5.795588745
16650201	15.91893	2.76689	---	---	---	5.753365692
16927810	202.2847	35.167	ENST0000039031	IGLV2-18 // IGH	ENST0000039031	5.752120313
16927756	267.8531	47.3531	---	---	BC073769	5.656502537
17122982	1407.769	249.319	---	---	---	5.646459213
16882720	1287.047	229.739	ENST0000049857	IGKV1-39	ENST0000049857	5.602204063
16797504	101.5519	18.2327	---	---	AK303185	5.569773615
17052973	371.3268	66.7751	NM_014141	CNTNAP2	NM_014141	5.5608556
16988423	120.4087	21.8845	NM_016644	PRR16	NM_016644	5.502005757
17124830	80.73445	14.9903	---	---	---	5.385786656
16771433	260.3532	48.8531				5.329307659
16859795	1084.581	204.641	NM_004864	GDF15	NM_004864	5.299922938
16962689	88.84472	16.8925	NM_001146686	GEMC1	NM_001146686	5.259414971
16771432	246.8531	47.3531				5.213028247
16882723	580.8939	111.433	ENST0000046517	IGKV1-37	ENST0000046517	5.212929169
16725041	85.73141	16.4861	AK304258	FAM111B	AK304258	5.200220671
16826110	27.76014	5.36225	---	---	ENST0000045081	5.176953572
16771448	82.3531	15.9189				5.173281119
17041111	572.3929	111.749	---	---	---	5.122120785
17031045	542.9544	106.942	---	---	---	5.077082761
17041030	576.8534	113.619	---	---	---	5.07708123
16908616	17.87779	3.52748				5.06815211
17007118	569.0654	112.403	NM_001002029	C4B	NM_001002029	5.062737817
17035749	576.0376	113.78	---	---	---	5.062736037
16797353	386.5006	76.4972	ENST0000039054	IGHG4 // IGH	ENST0000039054	5.052479692
17068918	42.02176	8.31722	---	---	ENST0000052041	5.052382305
17007048	554.1838	109.97	NM_007293	C4A	NM_007293	5.039431842
17028176	585.5333	116.728	---	---	---	5.016241246
16709245	114.3195	22.9462	NM_000681	ADRA2A	NM_000681	4.982060234
16927840	137.7116	27.8571	ENST0000039031	IGLV3-1	ENST0000039031	4.943508037
17017217	95.35309	19.3674				4.923373416
16797563	130.4524	26.5211	BC089417 // BCC	IGHG1 // IGH	BC089417	4.918817439
16652211	9.485942	1.96101	---	---	---	4.83727365
16797459	25.60906	5.2969	BC041037	IGHM	BC041037	4.834722321
16797603	72.77382	15.0733	AK127409	IGHG1	AK127409	4.828011212
16778241	574.0981	120.903	NM_006475	POSTN	NM_006475	4.748415053

TABLE 2: Genes up-regulated in Stage 3 Prostate Cancer

17025844	359.8978	76.5455	NM_003247	THBS2	NM_003247	4.701750554
16986409	205.3531	43.8531	NM_001992	F2R	NM_001992	4.682749908
17119354	42.3677	9.05517	---	---	---	4.678840927
16797599	44.28416	9.6031	ENST00000433072	IGHV3-72	ENST00000433072	4.6114423
16777455	178.3223	39.0037	ENST00000422229	LOC10028727	ENST00000422229	4.571934091
16900136	436.1757	96.3057	---	---	M85256	4.529075073
16927702	20.19103	4.46417	ENST00000390285	IGLV6-57 //	ENST00000390285	4.522907954
16655779	15.91893	3.52748	---	---	---	4.512837362
16900090	80.64831	17.9646	BC030813	IGK@	BC030813	4.489300601
17030967	422.8837	94.3917	---	---	---	4.480096492
17120580	33.62069	7.51552	---	---	---	4.473504477
16900124	182.6448	40.8805	---	---	AY510107	4.467778608
16773183	248.184	55.7946	NM_001135816	PCOTH	NM_001135816	4.448174796
17038462	365.8134	84.096	---	---	---	4.349949023
16652349	21.0791	4.86716	---	---	---	4.330884676
16764106	40.85311	9.48594	---	---	---	4.306700378
16776160	72.44245	16.8282	NM_004791	ITGBL1	NM_004791	4.30483743
16771539	15.91893	3.70533	---	---	---	4.296221149
16797444	39.50548	9.22026	ENST00000390595	IGHV1-3	ENST00000390595	4.284640718
16934608	14.95529	3.52748	---	---	---	4.239656276
16927746	22.13312	5.2281	---	---	BC071725	4.233492091
17017218	89.85309	21.3575	---	---	---	4.20710562
17092177	34.53316	8.27724	NM_134441	RLN2	NM_134441	4.172064201
17056791	316.5887	76.6909	NM_003014	SFRP4	NM_003014	4.128114598
16797487	97.13251	23.8617	ENST00000390605	IGHV1-18 //	ENST00000390605	4.070641597
16797467	25.73766	6.32925	BC021276	IGHD	BC021276	4.066464779
16823199	41.85311	10.3189	---	---	---	4.055958375
16994434	108.9186	26.9435	NM_001369	DNAH5	NM_001369	4.042481489
16882786	53.36963	13.2068	---	---	L37727	4.041062844
17120582	28.66663	7.10602	---	---	---	4.034132463
16925461	27.78815	6.91421	---	---	---	4.01899423
16821139	538.2185	134.086	NM_014940	MON1B	NM_014940	4.013994802
16721216	62.57508	15.6013	NM_001004759	OR51T1	NM_001004759	4.010888836
16948835	48.28059	12.0443	NR_030410	MIR1224	NR_030410	4.008600785
16944410	101.3564	25.2971	NM_015900	PLA1A	NM_015900	4.006641077
16977045	87.30434	21.9241	NM_002416	CXCL9	NM_002416	3.982110131
16997383	78.13578	19.636	NM_004101	F2RL2	NM_004101	3.979208607
16653177	31.96446	8.08772	---	---	---	3.95222237
16805874	62.01773	15.8785	---	---	---	3.905770007
17006289	29.35312	7.52407	---	---	---	3.901227952
16771470	29.35312	7.52407	---	---	---	3.901227952
17072601	259.5898	66.548	NM_025195	TRIB1	NM_025195	3.900788648
17049983	46.73403	12.0346	---	---	BC041378	3.883315316
16889695	7.524072	1.96101	---	---	---	3.8368351
16770463	23.63528	6.17262	---	---	---	3.829054002
16651813	36.06557	9.47146	---	---	---	3.807816072
17053007	27.98836	7.35444	---	---	---	3.805641736
16900178	61.84101	16.395	ENST00000390264	IGKV2-40 //	ENST00000390264	3.771934073
17017216	10.31892	2.76689	---	---	---	3.72942907

TABLE 2: Genes up-regulated in Stage 3 Prostate Cancer

16900120	163.5259	43.8578	---	---	AY172961	3.728547716
16730701	93.35493	25.1268	---	---	---	3.715357366
16727220	14.95529	4.04858				3.693957539
16736764	47.30074	12.8925	NM_001135091	MUC15	NM_001135091	3.66884855
16882710	42.12179	11.4928	ENST00000390241	IGKV4-1 // IGK	ENST00000390241	3.665052615
16771551	13.50872	3.70533				3.645750598
16651831	32.68105	8.98389	---	---	---	3.637739736
16797579	163.5867	45.3404	ENST00000390630	IGHV4-61 // IGH	ENST00000390630	3.60796932
17025498	15.44715	4.28837	---	---	TCONS_000112	3.602100377
16925602	141.2234	39.4977	NM_001136154	ERG	NM_001136154	3.575488668
16797520	162.2825	45.5536	ENST0000039061	IGHV4-34	ENST0000039061	3.562454833
16650839	13.04134	3.67855	---	---	---	3.545240256
17022929	46.89199	13.2321	NM_000493	COL10A1	NM_000493	3.54381095
16780313	71.12165	20.0748	---	---	---	3.542837602
16882774	154.2082	43.5616	---	---	L37728	3.540007185
16882759	187.2331	53.3789	ENST0000039027	IGKV3D-20	ENST0000039027	3.507624456
16771439	718.8532	205.353				3.500571455
16700239	23.85425	6.84938	NM_033445	HIST3H2A	NM_033445	3.48268901
16771446	377.3531	108.353				3.48262394
16818440	16.171	4.65883	---	---	ENST000003561	3.471041669
16904488	167.3531	48.3531	NM_173512	SLC38A11	NM_173512	3.461061044
17101990	114.1193	33.1021	NM_014927	CNKSRR2	NM_014927	3.447494268
17100888	93.22743	27.0828	---	---	---	3.442306272
16743148	29.2948	8.55214	---	---	TCONS_I2_000C	3.425433836
17122980	945.2687	276.3	---	---	---	3.421162981
16797555	66.30218	19.3839	---	---	AK301358	3.420475023
16900156	309.4696	90.4765	ENST00000453166	IGKV1-5 // IGK	ENST00000453166	3.420442906
16907720	41.54752	12.1856	---	---	---	3.409547631
16837348	102.3698	30.0536	NM_002758	MAP2K6	NM_002758	3.406246517
16657407	8.407032	2.48457	---	---	---	3.383702425
17124680	95.97153	28.3777	---	---	---	3.381929992
16762053	22.41737	6.64723	NM_134431	SLCO1A2	NM_134431	3.372435813
16797440	123.8856	36.7458	ENST0000039059	IGHV1-2	ENST0000039059	3.37141837
16824655	101.0769	30.0285	NM_052956	ACSM1	NM_052956	3.366036753
16651833	65.70432	19.5403	---	---	---	3.362497972
16797395	44.14833	13.2148	ENST00000390556	IGHD // IGH	ENST00000390556	3.34082721
16882707	128.4853	38.4749	XR_112349	LOC10029367	XR_112349	3.339462012
17055182	36.28564	10.8749	---	---	TCONS_000142	3.336653529
16651801	117.8531	35.3531	---	---	---	3.333600165
16797911	88.73444	26.8303	---	---	---	3.307248636
17061298	97.67275	29.8018	NM_005045	RELN	NM_005045	3.277406697
16657215	11.53761	3.53646	---	---	---	3.262476184
17100771	106.7785	32.8316	---	---	---	3.252313704
16842458	12.28845	3.77906				3.251723048
17092184	30.81701	9.5273	---	---	TCONS_000162	3.23459955
17124678	68.18985	21.2765	---	---	---	3.204931347
17101828	348.4802	109.207	NM_004726	REPS2	NM_004726	3.191014837
16927806	45.42705	14.2592	---	---	BC073786	3.185808591
17104673	23.85425	7.52407				3.17039098

TABLE 2: Genes up-regulated in Stage 3 Prostate Cancer

16722386	11.67676	3.70533					3.151338895
16818540	17.96679	5.70132	---	---	---		3.151338085
16773379	34.91864	11.0981	NM_016529	ATP8A2	NM_016529		3.146364825
16704154	70.39498	22.3787	NM_020975	RET	NM_020975		3.145624187
16652577	6.110884	1.94387	---	---	---		3.143675541
16849148	113.0996	36.0098	NM_052916	RNF157	NM_052916		3.14080056
17121248	40.67533	12.9985	---	---	---		3.129244641
16654065	24.43888	7.82042	---	---	---		3.12500983
16740570	25.36566	8.12625					3.121447546
16771441	373.8531	119.853					3.119260995
16660676	18.43876	5.91335					3.118160703
16915916	36.3531	11.6768	NR_036220	MIR4326	NR_036220		3.113286562
17046105	45.10867	14.507	NM_182546	VSTM2A	NM_182546		3.109435219
17045486	191.258	61.644	NM_015052	HECW1	NM_015052		3.102623517
17108003	1531.786	493.724	NM_001711	BGN	NM_001711		3.102514137
16771431	1330.353	428.853					3.102118185
16771457	165.3531	53.3531					3.099221976
16651135	11.18849	3.61574	---	---	---		3.094381985
16714776	79.85312	25.8534	NM_000399	EGR2	NM_000399		3.088694081
16656505	11.9957	3.88605	---	---	---		3.086864364
16652451	18.88776	6.18345	---	---	---		3.054567119
16900166	164.3362	53.8234	---	---	BC092455		3.053251052
16758046	18.61946	6.12081	---	---	ENST000003650		3.041994796
16752022	22.85537	7.52407					3.03763308
16882740	161.7258	53.263	ENST0000045316	IGKV1-5 // IGK	ENST0000045316		3.036362384
16819224	249.7647	82.3714	NM_176870	MT1M	NM_176870		3.032178167
16900162	89.84427	29.6393	---	---	BC022362		3.031255809
17079429	11.62186	3.84754					3.020595763
16722987	92.60322	30.7645	NM_001009909	LUZP2	NM_001009909		3.01007234
17124874	21.54125	7.15665	---	---	---		3.009964865
17126164	136.6796	45.513	---	---	---		3.003087248
17126054	136.6796	45.513	---	---	---		3.003087248
16839602	28.19225	9.45108	NR_003073	SNORD91B	NR_003073		2.982966599
16817320	79.81844	26.8072	NM_001024401	SBK1	NM_001024401		2.977501185
17124682	32.28627	10.8509	---	---	---		2.97543805
16989571	31.60618	10.6226	NM_006790	MYOT	NM_006790		2.975360174
16990120	73.3531	24.8537					2.951400317
17119976	175.9439	59.7332	---	---	---		2.945494
16769106	13.97358	4.76573	---	---	---		2.932098908
16651867	7.524072	2.56754	---	---	---		2.930461789
16870443	52.24699	17.8481	NM_004750	CRLF1	NM_004750		2.927315472
16651823	20.89903	7.14103	---	---	---		2.926611188
16724683	13.02334	4.45215	ENST0000045607	TRIM49B	ENST0000045607		2.92518194
16826510	114.1764	39.2102	NM_001146188	TOX3	NM_001146188		2.911904833
16721208	19.55239	6.71677	---	---	ENST000003571		2.910980155
17003640	155.4284	53.4038	NM_014244	ADAMTS2	NM_014244		2.910434905
16976131	101.5015	35.0087	---	---	---		2.899318856
16771440	1110.853	384.353					2.890188735
16754887	33.38987	11.564	---	---	---		2.887392965

TABLE 2: Genes up-regulated in Stage 3 Prostate Cancer

16651869	8.907819	3.0871	---	---	---	2.885493654
16960304	65.46329	22.6975	NM_000096	CP	NM_000096	2.884160472
16781440	8.997409	3.11959	NM_001005500	OR4M1	NM_001005500	2.884160246
17122874	12.99988	4.51405	---	---	---	2.879873816
16887278	23.59803	8.19644	NM_006063	KBTBD10	NM_006063	2.879059874
16655639	10.92429	3.81286	---	---	---	2.865114744
16653857	10.08829	3.53065	---	---	---	2.857348
16889749	50.8531	17.8778	---	---	---	2.844484693
16651863	27.60557	9.71141	---	---	---	2.842591929
16733689	161.2451	56.7275	NM_001080407	GLB1L3	NM_001080407	2.842452315
16651737	19.27936	6.79482	---	---	---	2.837361402
16743978	160.5276	56.7082	NM_000855	GUCY1A2	NM_000855	2.830767712
17125432	63.42935	22.4133	---	---	---	2.829990894
16819229	31.05561	10.988	NR_036677	MT1JP	NR_036677	2.826312815
16922613	93.57937	33.1651	NM_009586	SIM2	NM_009586	2.821621825
16651767	70.64474	25.1741	---	---	---	2.806244667
16727207	14.95529	5.35025	---	---	---	2.795248599
16982747	49.8531	17.8778	---	---	ENST00000506:	2.788549368
16914395	73.21024	26.2776	NM_004994	MMP9	NM_004994	2.786035391
16882718	51.26296	18.4076	ENST0000039026	IGKV2-40	// ENST00000390:	2.784884697
16652529	14.23767	5.11248	---	---	---	2.784884677
16882555	179.456	64.5052	---	---	L37729	2.782037552
16650635	60.68647	21.8411	---	---	---	2.778549667
16691766	43.16207	15.5512	---	---	TCONS_I2_000	2.77548342
17094598	36.16425	13.0405	---	---	ENST00000424:	2.77321934
16771451	1741.753	628.353	---	---	---	2.771932605
16687914	46.39119	16.7362	NM_000775	CYP2J2	NM_000775	2.771913629
16900128	271.6914	98.063	ENST0000039025	IGKV3D-15	/ ENST00000390:	2.77058042
17124872	68.65642	24.7827	---	---	---	2.770339919
16650305	13.67185	4.94329	---	---	---	2.765741809
17043095	101.9971	36.9132	NM_152744	SDK1	NM_152744	2.763159107
16900140	110.7117	40.1071	BC062704	IGK@	BC062704	2.760401525
17044411	17.19485	6.25918	---	---	TCONS_000133	2.747141877
17124916	82.11858	29.9376	---	---	---	2.742992338
17123808	73.76702	26.9163	---	---	---	2.740608754
17118946	19.94665	7.27914	---	---	---	2.740248161
16679281	28.48567	10.3966	ENST0000025538	CHRM3	// CHENST00000255:	2.739910374
16863124	37.91788	13.8391	NM_001645	APOC1	NM_001645	2.739909387
16659788	25.63639	9.40633	ENST0000032945	C1orf64	// C ENST00000329:	2.725439629
16718378	29.35311	10.8013	---	---	---	2.717563506
16771430	380.2792	140.106	NM_006549	CAMKK2	NM_006549	2.714224944
16777401	160.0844	58.9853	NM_005932	MIPEP	NM_005932	2.713973409
16654157	16.89411	6.2286	---	---	---	2.712344668
16650481	16.89411	6.2286	---	---	---	2.712344668
16653655	5.662204	2.0888	---	---	---	2.710743628
16667925	153.0064	56.5834	NM_001113226	NTNG1	NM_001113226	2.704086835
17031139	1480.035	547.524	---	---	---	2.703140793
16771568	36.3531	13.5087	---	---	---	2.691083981
16782122	204.5133	76.0028	---	---	BC110354	2.690866399

TABLE 2: Genes up-regulated in Stage 3 Prostate Cancer

17018824	118.6674	44.1057	BC054098	LOC10013104	BC054098	2.690524214
17006313	9.485942	3.52748				2.689157718
16845652	40.34623	15.0355	---	---	ENST000004531	2.683390819
16946094	29.04	10.8369	NM_004189	SOX14	NM_004189	2.679723243
16654509	36.66093	13.7281	---	---	---	2.670500892
17041426	17.13655	6.41766	---	---	---	2.670216141
17038811	17.13655	6.41766	---	---	---	2.670216141
17036073	17.13655	6.41766	---	---	---	2.670216141
17033774	17.13655	6.41766	---	---	---	2.670216141
17031324	17.13655	6.41766	---	---	---	2.670216141
17028523	17.13655	6.41766	---	---	---	2.670216141
17026466	17.13655	6.41766	---	---	---	2.670216141
17016618	17.13655	6.41766	---	---	TCONS_000114	2.670216141
17124832	119.3763	44.7194	---	---	---	2.669453378
16650723	6.849379	2.56754	---	---	---	2.667683594
16905963	19.80887	7.4255	NM_173648	CCDC141	NM_173648	2.667683075
16771787	61.68089	23.2011	NM_032554	GPR81	NM_032554	2.658534146
16771442	1313.853	494.353				2.657721778
16777777	174.2083	65.5658	NM_003045	SLC7A1	NM_003045	2.656998723
16709453	129.7964	48.8711	NM_000684	ADRB1	NM_000684	2.655893833
17097072	56.347	21.3373	NM_153366	SVEP1	NM_153366	2.640773368
16771443	697.3531	264.853				2.632980698
16790875	58.8531	22.3554	NM_000257	MYH7	NM_000257	2.632613432
17009286	322.6246	123.1	---	---	---	2.62083134
17020846	403.4706	154.077	NM_004370	COL12A1	NM_004370	2.618624548
16654191	28.30678	10.8369	---	---	---	2.612063922
16797527	11.04775	4.22999	ENST0000039061	IGHV3-38	ENST0000039061	2.611769256
17119712	6.2286	2.38983	---	---	---	2.6062909
17105332	59.92535	23.0279	NM_014467	SRPX2	NM_014467	2.602298955
16995714	31.75907	12.2619				2.590054747
16713391	6.412671	2.47791	---	---	---	2.587939575
16771445	1104.352	426.853				2.587195123
16653497	10.43419	4.03598	---	---	---	2.585294713
16655439	29.09723	11.2835	---	---	---	2.578752952
16771453	862.1031	334.353				2.578420365
16654855	56.02858	21.7376	---	---	---	2.57749495
16908926	145.8344	56.6259	---	---	---	2.575403283
16651027	10.82595	4.20381	---	---	---	2.575272229
16854828	39.0187	15.1793	NM_020783	SYT4	NM_020783	2.570528847
16850400	37.73158	14.7299	---	---	---	2.561556938
16747729	9.485942	3.70533	---	---	---	2.560078136
16789897	7.847335	3.06527	---	---	---	2.560077866
16721184	378.5787	148.067	NM_152430	OR51E1	NM_152430	2.55681535
16651811	15.91893	6.2286	---	---	---	2.55577979
16746379	1433.914	561.864	NM_015261	NCAPD3	NM_015261	2.55206598
17088390	80.52291	31.662	NM_000608	ORM2	NM_000608	2.543205934
16651815	31.89448	12.5456	---	---	---	2.542290227
16803562	104.0998	41.011	NM_000745	CHRNA5	NM_000745	2.538339113
16655303	80.8531	31.8531	---	---	---	2.538311813

TABLE 2: Genes up-regulated in Stage 3 Prostate Cancer

16979182	15.94943	6.2869	NM_022569	NDST4	NM_022569	2.536930761
16651853	64.86739	25.6029	---	---	---	2.533599371
16880232	20.01838	7.90403	---	---	---	2.532681126
16701037	63.84798	25.2123	NM_022469	GREM2	NM_022469	2.532409923
17058949	13.50872	5.35025	---	---	TCONS_I2_0002	2.524874992
16656789	13.50872	5.35025	---	---	---	2.524874992
16654415	13.50872	5.35025	---	---	---	2.52487452
16693534	46.22348	18.3256	---	---	---	2.522340569
17050251	56.95215	22.5996	NM_000441	SLC26A4	NM_000441	2.52005347
16771450	637.8531	253.353	---	---	---	2.517644742
17056984	52.36195	20.8149	NM_002192	INHBA	NM_002192	2.515595777
17123814	39.22652	15.6566	---	---	---	2.505433498
17055140	53.58457	21.3874	NM_001037763	COL28A1	NM_001037763	2.505432884
16748989	135.4571	54.086	NM_000921	PDE3A	NM_000921	2.504478057
16650479	1593.239	636.594	---	---	---	2.502754895
16882726	146.3779	58.8077	ENST00000390265	LOC652694	/ ENST00000390265	2.489095385
16655831	14.13687	5.68404	---	---	---	2.487116558
17041225	1611.063	648.694	---	---	---	2.483548101
17038596	1611.063	648.694	---	---	---	2.483548101
17035880	1611.063	648.694	---	---	---	2.483548101
17033604	1611.063	648.694	---	---	---	2.483548101
17106791	10.56945	4.25862	---	---	---	2.481894961
16769754	6.849379	2.76689	---	---	---	2.475479329
16900180	36.34693	14.6959	---	---	L37729	2.473263364
16912368	12.60306	5.11377	NR_036161	MIR3193	NR_036161	2.464536403
17079424	8.693592	3.52748	---	---	---	2.464535417
16999585	8.40193	3.41053	---	---	---	2.463528364
17098468	5.570865	2.26763	---	---	---	2.456690465
16934609	21.35746	8.69359	---	---	---	2.456689939
16697219	8.693694	3.53878	---	---	---	2.456689643
16657209	8.354043	3.41235	---	---	---	2.448176669
17118180	123.2698	50.4129	XR_113917	LOC100131777	XR_113917	2.445204965
17010780	10.70584	4.37978	---	---	---	2.444379601
16677361	180.4793	73.8712	NM_012424	RPS6KC1	NM_012424	2.44316089
17123530	66.42719	27.2379	---	---	---	2.438779744
16902945	49.21727	20.2002	NM_207363	NCKAP5	NM_207363	2.436474391
16713441	28.74816	11.8264	---	---	AK123067	2.430854464
16989736	646.902	266.389	NM_001964	EGR1	NM_001964	2.428410171
16650789	15.50918	6.39316	---	---	---	2.425903196
16971017	76.90681	31.7031	---	---	---	2.425846637
16654967	17.05442	7.03154	---	---	---	2.425417131
16691245	20.40955	8.41536	NM_000036	AMPD1	NM_000036	2.425274124
17124452	64.09581	26.4351	---	---	---	2.424648829
16651755	88.40464	36.472	---	---	---	2.4239037
17023646	1582.4	653.049	NM_001901	CTGF	NM_001901	2.423093873
16703058	8.06057	3.32905	---	---	TCONS_000181	2.421285984
16651415	34.44804	14.2336	---	---	---	2.420189959
16771454	745.853	308.353	---	---	---	2.418827636
16651475	73.3531	30.3531	---	---	---	2.416658458

TABLE 2: Genes up-regulated in Stage 3 Prostate Cancer

16656379	12.69034	5.26033	---	---	---	2.412460357
16651783	36.24588	15.0347	---	---	---	2.410813378
16892975	203.0282	84.5023	NM_005855	RAMP1	NM_005855	2.402635479
17001349	21.44912	8.93664	NM_003122	SPINK1	NM_003122	2.400131414
16893840	16.68953	6.9566	---	---	---	2.399092258
16859800	16.33636	6.8094	NR_036156	MIR3189	NR_036156	2.399091256
16675158	14.18309	5.91186	NM_005807	PRG4	NM_005807	2.39909098
17092918	25.40083	10.5877	NM_001171197	ELAVL2	NM_001171197	2.399090831
16742384	97.94767	40.8625	NM_005512	LRRC32	NM_005512	2.397003955
17028313	1480.592	618.491	---	---	---	2.393878003
17127653	29.54964	12.3455	---	---	---	2.39354973
16919879	168.2541	70.368	NM_001011554	SLC13A3	NM_001011554	2.391061556
16743751	15.57213	6.52708	NM_002426	MMP12	NM_002426	2.385771349
17007257	1212.8	510.226	NM_019111	HLA-DRA	NM_019111	2.376988214
16762759	115.2441	48.5018	NM_001193451	TMTC1	NM_001193451	2.376078826
17125924	30.26858	12.7389	---	---	---	2.376078588
17125872	30.26858	12.7389	---	---	---	2.376078588
17117738	30.26858	12.7389	AF258550	LOC1001295C	AF258550	2.376078588
17056849	16.69306	7.03568	ENST00000390346	TRGV3	ENST00000390346	2.372629564
16983569	40.69362	17.2163	---	---	TCONS_I2_0002	2.36366266
17039661	10.552	4.46434	---	---	---	2.363619258
16650087	9.08113	3.84754	---	---	---	2.360243168
17086496	175.0306	74.2119	NM_004938	DAPK1	NM_004938	2.358523758
16995082	31.65038	13.4225	NM_016180	SLC45A2	NM_016180	2.358011069
16825266	927.8256	393.981	NM_015171	XPO6	NM_015171	2.355003267
16652743	8.149516	3.46195	---	---	---	2.354023395
16652079	8.149516	3.46195	---	---	---	2.354023395
16683607	68.88401	29.2707	---	---	---	2.35334425
16925893	49.66999	21.1162	---	---	---	2.352226446
16773165	163.7756	69.637	NM_018647	TNFRSF19	NM_018647	2.351848788
17083261	153.2569	65.2096	NM_004170	SLC1A1	NM_004170	2.350218465
16656441	22.4902	9.57637	---	---	---	2.348509436
17028377	115.5247	49.2116	---	---	---	2.347508099
17007322	115.5247	49.2116	---	---	TCONS_I2_0002	2.347508099
17048068	32.3642	13.7937	---	---	TCONS_I2_0002	2.346304723
16654439	9.485942	4.04858	---	---	---	2.34302825
16652341	9.485942	4.04858	---	---	---	2.34302825
16890611	12.32443	5.26005	---	---	ENST00000452	2.343027038
16718500	25.23283	10.7716	NM_198060	NRAP	NM_198060	2.342535317
16852617	12.3358	5.26701	---	---	ENST00000516	2.342087381
16703311	30.66251	13.092	NM_020752	GPR158	NM_020752	2.342087052
17022358	109.1952	46.6433	---	---	---	2.341067342
16747261	75.28329	32.1577	NM_001242	CD27	NM_001242	2.341067204
16796279	45.65854	19.5145	NM_001080451	SERPINA11	NM_001080451	2.339726193
16764108	301.114	128.781	---	---	---	2.338195612
16882770	229.6826	98.285	ENST00000492446	IGKV1D-16	ENST00000492446	2.336904615
16695392	53.3531	22.8554	AY358159	SLAMF6	AY358159	2.334379185
16725306	63.00276	27.0236	NM_031457	MS4A8B	NM_031457	2.331399467
17087631	11.42273	4.90188	---	---	ENST00000517	2.330277224

TABLE 2: Genes up-regulated in Stage 3 Prostate Cancer

17120584	18.51874	7.94755	---	---	---	2.330120518
17113672	11.81458	5.07037	---	---	TCONS_000170	2.330120027
17000522	51.11651	21.9574	---	---	ENST000005208	2.327988735
16655537	7.524072	3.24323	---	---	---	2.319929527
16984010	122.8784	53.08	NM_002185	IL7R	NM_002185	2.314965653
17078134	227.4629	98.3002	NM_172058	EYA1	NM_172058	2.31396078
17072669	102.3085	44.239	NM_002467	MYC	NM_002467	2.312634002
17015143	17.92884	7.76061	NM_001069	TUBB2A	NM_001069	2.310235327
16755521	31.07292	13.4835	---	---	---	2.304522952
16725252	20.78812	9.05078	NM_152866	MS4A1	NM_152866	2.296832637
16973498	135.6228	59.0531	NM_012445	SPON2	NM_012445	2.29662573
16652281	6.281745	2.73923	---	---	---	2.29325463
16742058	31.16811	13.6038	NM_182904	P4HA3	NM_182904	2.291132625
16653077	15.16956	6.62298	---	---	---	2.290443275
16769759	6.849379	2.99097	---	---	---	2.290019291
16769761	70.31812	30.7064	NM_181724	TMEM119	NM_181724	2.290018094
17077996	185.9479	81.202	BC041480	LOC286189	BC041480	2.289942366
17058758	31.41786	13.7383	BC147030	GATSL2	BC147030	2.286879536
16651859	32.71149	14.3248	---	---	---	2.283561272
16923145	94.78864	41.5311	NM_207627	ABCG1	NM_207627	2.282353224
16702636	39.35254	17.243	---	---	ENST000003621	2.282234114
16913486	236.4942	103.695	NM_080607	VSTM2L	NM_080607	2.280673399
16656715	44.80818	19.6652	---	---	---	2.278550801
16771543	58.8531	25.8534	---	---	---	2.276419777
17068851	9.284718	4.08565	---	---	---	2.272517514
16854406	217.6461	95.8639	---	---	---	2.270364644
16782078	17.35944	7.65116	---	---	X58763	2.26886351
16752682	120.0868	52.9321	NM_003725	HSD17B6	NM_003725	2.268694749
16850394	354.1669	156.13	---	---	---	2.268410299
17098331	68.8531	30.3531	---	---	---	2.268403468
16650135	39.85118	17.5719	---	---	---	2.267892487
16978719	19.23923	8.48893	---	---	ENST000005110	2.266389663
16740559	78.8531	34.8531	---	---	---	2.262441504
16962858	24.08801	10.6469	---	---	---	2.262441403
16792712	27.2631	12.0562	---	---	---	2.261332541
17084256	11.89771	5.26137	---	---	ENST000005160	2.261331785
16900479	442.8529	195.853	---	---	---	2.261148279
16930811	142.0906	62.9081	NM_019106	3-Sep	NM_019106	2.258701185
16969495	330.188	146.245	NM_001184690	NPNT	NM_001184690	2.257777547
16875599	33.47814	14.8421	NM_003283	TNNT1	NM_003283	2.255620162
16656895	41.99076	18.6427	---	---	---	2.252402958
16798200	10.35711	4.60087	NR_003333	SNORD116-1	NR_003333	2.251119897
16743449	6.147243	2.73075	---	---	---	2.251119748
17073146	432.7071	192.299	NM_032611	PTP4A3	NM_032611	2.250179798
16651885	17.87779	7.94619	---	---	---	2.249857416
16652157	31.0082	13.7936	---	---	---	2.248015201
16993398	30.35311	13.5087	---	---	---	2.24692717
16651771	25.25761	11.2418	---	---	---	2.246762523
17120586	14.65166	6.52536	---	---	---	2.245340565

TABLE 2: Genes up-regulated in Stage 3 Prostate Cancer

16652637	18.01067	8.02771	---	---	---	2.243562051
16651973	18.01067	8.02771	---	---	---	2.243562051
17006320	108.3531	48.3531				2.240871373
16722081	88.80753	39.6458	NM_014632	MICAL2	NM_014632	2.240021399
17106398	40.46035	18.0684	NM_007231	SLC6A14	NM_007231	2.239290407
16652773	22.64484	10.121	---	---	---	2.237413534
16983268	16.42156	7.34595	---	---	---	2.235457937
16986417	73.99336	33.1012	NM_005242	F2RL1	NM_005242	2.235369253
17013507	67.35354	30.1325	NM_001030060	SAMD5	NM_001030060	2.235244923
17102041	1174.632	526.397	---	---	TCONS_I2_000C	2.231456486
17024265	16.45323	7.3771	NM_153235	TXLNB	NM_153235	2.230310764
16651855	95.61655	42.8768	---	---	---	2.230028953
16650433	8.112574	3.63864	---	---	---	2.229564595
17046076	31.019	13.9237	---	---	TCONS_000130	2.227781081
16655663	27.20644	12.2137	---	---	---	2.227540125
16653651	45.35311	20.3612	---	---	---	2.227433617
16672478	68.41187	30.7214	NM_020125	SLAMF8	NM_020125	2.226848859
16654803	17.45462	7.85128	---	---	---	2.223157102
16678329	12.58074	5.6622	---	---	---	2.221880384
17124274	1075.416	485.008	---	---	---	2.217317832
16993401	22.85537	10.3189				2.214899427
16654149	8.857203	3.99902	---	---	---	2.214842833
16651803	107.6625	48.6156	---	---	---	2.214566474
16652325	6.177154	2.78993	---	---	---	2.214086862
16939718	28.10461	12.6936	NM_152393	KBTBD5	NM_152393	2.214085894
16987945	65.57809	29.6445	NM_001744	CAMK4	NM_001744	2.212149568
16651389	5.81633	2.62971	---	---	---	2.211772839
16654131	4.787891	2.16483	---	---	---	2.211670662
17015637	204.1576	92.37	NM_017770	ELOVL2	NM_017770	2.210216634
16651827	36.53381	16.5451	---	---	---	2.208137404
17070061	39.18793	17.7704	NM_015364	LY96	NM_015364	2.205241199
16961749	31.28952	14.2006	---	---	ENST000004391	2.203401981
16769746	275.853	125.353				2.200607723
16860865	167.6028	76.1811	NM_182983	HPN	NM_182983	2.200056339
16893836	83.16865	37.8172	---	---	ENST000004381	2.199231037
16655281	46.29391	21.0507	---	---	---	2.199159364
16675045	98.218	44.6685	NM_031935	HMCN1	NM_031935	2.198819705
16716438	16.5916	7.54814	NR_029524	MIR107	NR_029524	2.198104142
16769088	58.30151	26.569	NM_145913	SLC5A8	NM_145913	2.194340104
17054691	31.49565	14.3533	---	---	ENST000004371	2.194315728
16990199	131.1711	59.7777	NR_026703	VTRNA1-1	NR_026703	2.194314937
17014798	213.2502	97.1891	---	---	TCONS_000120	2.194177476
16851090	5.857398	2.67057	---	---	---	2.19331543
16943241	40.81227	18.6177	NM_001850	COL8A1	NM_001850	2.192118481
16911108	132.4793	60.4825	NM_175839	SMOX	NM_175839	2.190374437
16696187	95.47715	43.6585	NM_000130	F5	NM_000130	2.186910123
16969578	196.3378	89.9168	NM_183075	CYP2U1	NM_183075	2.183549924
16968274	36.09006	16.5289	---	---	TCONS_I2_0002	2.183453335
17098319	10.61739	4.86266	---	---	ENST000004461	2.18345264

TABLE 2: Genes up-regulated in Stage 3 Prostate Cancer

16880372	12.79989	5.8671	---	---	---	2.181638288
16722078	24.22278	11.1035	---	---	---	2.181554382
16651773	52.66679	24.1779	---	---	---	2.178303814
16790223	19.58634	8.99284	---	---	---	2.177991988
16927821	214.9343	98.7958	---	---	BC030983	2.175540643
16853412	14.17619	6.51695	---	---	---	2.175280849
16808300	46.70393	21.4729	---	---	ENST000005101	2.175017347
16797423	64.80266	29.8525	ENST0000039057	IGHD2-15	// ENST0000039057	2.170761578
16652131	6.950169	3.20225	---	---	---	2.170399715
16850724	106.5251	49.1166	NM_001010000	ARHGAP28	NM_001010000	2.168821608
16650613	13.50872	6.2286	---	---	---	2.168821244
16749759	123.1061	56.843	NM_001714	BICD1	NM_001714	2.165722135
16938098	7.654246	3.53648	---	---	---	2.164369137
16917963	74.89725	34.6089	NM_001322	CST2	NM_001322	2.164106243
16748590	173.2551	80.0791	NM_001423	EMP1	NM_001423	2.163550351
16651769	76.60066	35.4373	---	---	---	2.161581632
16668564	92.79278	42.9512	NM_032414	PROK1	NM_032414	2.160424463
16922943	131.514	60.9775	NM_058186	FAM3B	NM_058186	2.156763094
16657005	63.2889	29.3945	---	---	---	2.153087927
16826230	37.13572	17.2578	NM_018092	NETO2	NM_018092	2.151822364
16701617	9.937289	4.62044	NM_001001821	OR2T34	NM_001001821	2.150721662
16769721	87.8531	40.8531	---	---	---	2.150462964
16656755	11.88567	5.52983	---	---	---	2.149374266
16652255	21.9714	10.2252	---	---	---	2.148750147
16655409	8.693592	4.04858	---	---	---	2.147317752
16975071	10.46398	4.87305	---	---	TCONS_I2_0002	2.147317684
16992343	20.36115	9.48594	---	---	---	2.146455249
16779529	9.514606	4.43379	---	---	---	2.145930682
17074371	17.91523	8.3509	NM_016512	SPAG11B	NM_016512	2.145304269
17047514	45.9165	21.4034	NM_001110354	ZP3	NM_001110354	2.14529401
16775136	117.9391	55.0254	NM_001040429	PCDH17	NM_001040429	2.143358989
16872223	129.2699	60.3128	---	---	---	2.143325535
16983692	64.41228	30.1115	NM_178140	PDZD2	NM_178140	2.139125583
16758925	7.790483	3.6419	---	---	---	2.139125418
16706413	39.06309	18.2679	---	---	---	2.138347122
16927790	82.22578	38.4724	ENST0000039030	IGLV3-25	// ENST0000039030	2.137266716
16710342	9.455412	4.42941	---	---	---	2.134690746
16698185	61.3185	28.733	NM_001276	CHI3L1	NM_001276	2.134077796
16928411	23.37483	10.9587	NR_029395	IGLL3P	NR_029395	2.132989072
16961372	516.1124	242.028	NR_001566	TERC	NR_001566	2.132453544
16698234	1118.353	524.853	NM_002023	FMOD	NM_002023	2.130792812
16653121	4.915387	2.30908	---	---	---	2.128723728
16731461	83.84452	39.3919	NM_006169	NNMT	NM_006169	2.128471622
16969633	55.55864	26.1113	---	---	---	2.127759865
16771447	16.89411	7.94619	---	---	---	2.126064724
16968428	11.65614	5.48581	---	---	TCONS_000081	2.124780115
17050697	37.79309	17.7952	NM_000492	CFTR	NM_000492	2.123782395
16976844	45.34735	21.3602	NM_002089	CXCL2	NM_002089	2.122986381
16797725	9.948105	4.6859	NM_001005241	OR4N4	NM_001005241	2.12298614

TABLE 2: Genes up-regulated in Stage 3 Prostate Cancer

16652791	17.51464	8.25055	---	---	---	2.122845401
17079908	10.65647	5.02321	---	---	---	2.121445824
16863074	673.6569	317.726	NM_005581	BCAM	NM_005581	2.120246804
16771485	10.31892	4.86716				2.120111983
17048563	109.4387	51.6307	NM_015068	PEG10	NM_015068	2.119643112
16750633	4.721148	2.22922	---	---	---	2.117852248
16734670	9.29922	4.39094	---	---	---	2.117821804
16738512	169.6462	80.1349	NM_003627	SLC43A1	NM_003627	2.117008752
16828617	61.98566	29.2939	---	---	TCONS_000242	2.115992067
17119960	15.91893	7.52407	---	---	---	2.115733905
17107640	20.21491	9.55457	---	---	ENST00000457	2.11573316
16797417	343.2665	162.321	AK301389	IGHV4-31	AK301389	2.114736091
17124306	13.18052	6.23457	---	---	---	2.114101818
16651125	7.212379	3.41323	---	---	---	2.113068106
16892032	51.29613	24.2921	NM_001144994	C2orf72	NM_001144994	2.111634874
16651365	7.136817	3.38237	---	---	---	2.110004819
16891128	10.7391	5.09378	AK092605	LOC10012917	AK092605	2.108279223
16871031	8.295278	3.94071	---	---	TCONS_000272	2.10501904
16966162	29.5787	14.056	---	---	---	2.104345401
16850607	29.5787	14.056	---	---	---	2.104345401
16773552	18.21082	8.65793	NR_002162	ATP5EP2	NR_002162	2.10336809
16818584	46.62481	22.1926	---	---	ENST00000516	2.100920759
17046524	1330.873	633.509	---	---	ENST00000384	2.100795727
16771534	30.35311	14.4563				2.099641472
16655999	8.819589	4.20073	---	---	---	2.099537723
17104893	30.19041	14.404	NM_001042506	PABPC1L2B	NM_001042506	2.095974035
16764109	26.0436	12.4321				2.094875745
16654789	4.237147	2.0239	---	---	---	2.093558615
17052685	298.4489	142.576	---	---	M12886	2.093266244
16652225	8.496908	4.05944	---	---	---	2.093121643
16771515	82.3531	39.3531				2.092671225
16889829	12.19301	5.82801	NM_012092	ICOS	NM_012092	2.092141307
17097653	56.1281	26.8638	BC093630	TNFSF8	BC093630	2.08935817
16874546	15.45142	7.3953	NM_004851	NAPSA	NM_004851	2.089357601
17022907	5.304449	2.5449	---	---	ENST00000516	2.084348863
17114728	31.53226	15.1418	NM_016249	MAGEC2	NM_016249	2.082468562
16924498	14.80308	7.10843	---	---	TCONS_I2_0001	2.082468281
16833901	11.25888	5.40761	---	---	TCONS_000251	2.082045564
17058083	8.783639	4.22053	---	---	TCONS_I2_0002	2.081168184
16740571	24.368	11.7103				2.080897806
16713309	96.35956	46.35	NM_031866	FZD8	NM_031866	2.078955357
16719171	108.7786	52.3835	NM_198148	CPXM2	NM_198148	2.076580177
16651835	129.8309	62.6625	---	---	---	2.071909094
17124880	21.58722	10.4204	---	---	---	2.071626671
17077308	42.58018	20.5683	---	---	ENST00000362	2.070183695
16847258	6.207458	3.00116	---	---	---	2.068354282
16709068	11.89459	5.75593	---	---	---	2.066493523
16651723	15.30042	7.41025	---	---	---	2.064765183
17006321	4.048582	1.96101				2.064539192

TABLE 2: Genes up-regulated in Stage 3 Prostate Cancer

17044253	122.0104	59.1302	NM_001005340	GPNMB	NM_001005340	2.063419369
17104663	11.67676	5.6622				2.062228772
16760514	15.71635	7.62105	NR_003012	SCARNA11	NR_003012	2.062228146
16909715	59.98871	29.1371	NR_024322	MSL3L2	NR_024322	2.05884073
16990288	33.14304	16.1055	NM_020957	PCDHB16	NM_020957	2.05786708
17125810	7.84225	3.81263	---	---	---	2.056916167
17005211	7.84225	3.81263	---	---	---	2.056916167
16854639	20.65015	10.041	NM_003787	NOL4	NM_003787	2.056576865
17040301	17.87779	8.69359	---	---	---	2.056433297
16722387	17.87779	8.69359				2.05643306
17080630	98.13257	47.7335	NM_021021	SNTB1	NM_021021	2.055843183
16761830	84.75237	41.2304	NM_152321	ERP27	NM_152321	2.055582114
17127683	19.20501	9.34553	---	---	---	2.054993986
16990304	60.05719	29.2286	NM_018932	PCDHB12	NM_018932	2.054739859
16913681	43.29738	21.0802	NM_030919	FAM83D	NM_030919	2.053938844
16867228	1605.853	781.853				2.053906027
17064677	12.94301	6.30457	---	---	---	2.052957149
16835016	114.1558	55.6782	NM_016835	MAPT	NM_016835	2.050278206
16650493	5.475449	2.67356	---	---	---	2.047999297
16661508	70.78714	34.5683	NM_014474	SMPDL3B	NM_014474	2.047746029
16744043	32.32274	15.7948	NM_003063	SLN	NM_003063	2.046415247
16780632	55.65226	27.195	NM_033132	ZIC5	NM_033132	2.046414397
16684686	105.6702	51.6368	NM_023009	MARCKSL1	NM_023009	2.046413429
16811085	140.0577	68.4493	NM_001004439	ITGA11	NM_001004439	2.046152408
16698419	15.18953	7.42626	---	---	---	2.045382228
16912753	12.23706	5.99199	---	---	TCONS_000278	2.042235022
16916154	13.18785	6.45902	---	---	---	2.041772591
16664579	12.59039	6.16663	---	---	---	2.041697336
16982244	12.12033	5.93865	---	---	---	2.040922068
17125902	181.7587	89.138	---	---	---	2.039071565
16929488	10.1189	4.96337	---	---	---	2.038716452
16652103	4.867158	2.38983	---	---	---	2.036610089
16933140	148.0755	72.7351	NM_001099781	GGT5	NM_001099781	2.035820419
17120274	194.317	95.5728	---	---	---	2.033182869
16908606	626.6538	308.215				2.033170341
17121092	63.02123	31.0156	---	---	---	2.031921044
17037290	72.80943	35.8514	---	---	---	2.030868268
16738657	25.46907	12.541	NM_145016	GLYATL2	NM_145016	2.030867604
17042506	64.44926	31.7349	---	---	---	2.030867012
17017998	64.44926	31.7349	NM_002118	HLA-DMB	NM_002118	2.030867012
16827041	273.3485	134.609	NM_001797	CDH11	NM_001797	2.030682152
16655809	7.524072	3.70533	---	---	---	2.030606156
16879174	65.26438	32.1484	NM_012413	QPCT	NM_012413	2.030099193
16654297	8.787509	4.32946	---	---	---	2.029699526
16651861	24.714	12.1933	---	---	---	2.026845825
16942648	127.0058	62.6835	ENST0000038961	GXYLT2 // GL	ENST0000038961	2.026145657
16853399	412.3318	203.605	NM_130386	COLEC12	NM_130386	2.025151592
16764305	41.00843	20.284	NM_006009	TUBA1A	NM_006009	2.021710183
17047777	62.36386	30.8506	NM_002069	GNAI1	NM_002069	2.021480302

TABLE 2: Genes up-regulated in Stage 3 Prostate Cancer

17012304	38.7567	19.174	NM_012259	HEY2	NM_012259	2.021313214
16896905	39.73885	19.6641	NM_133329	KCNG3	NM_133329	2.020885289
17104656	33.59843	16.638	NM_000166	GJB1	NM_000166	2.019379132
17064907	233.3417	115.959	NM_002847	PTPRN2	NM_002847	2.012270674
17004791	16.80733	8.35534	NM_001040274	SYCP2L	NM_001040274	2.011567693
16652335	14.04025	6.9887	---	---	---	2.008992514
17019820	58.35242	29.0634	NM_001013732	C6orf138	NM_001013732	2.007760956
17018395	169.353	84.3531				2.007668244
17102111	44.01597	21.9358	NM_006406	PRDX4	NM_006406	2.006578734
16769753	15.91893	7.94619				2.003341728
16991497	33.3629	16.6536	NM_005546	ITK	NM_005546	2.003341013
17091973	34.04906	16.9961	NM_152569	C9orf66	NM_152569	2.003340759
16780592	79.09185	39.482	NM_004951	GPR183	NM_004951	2.003239199
17059869	130.5572	65.2124	XR_108846	LOC10050602	XR_108846	2.002029675
16653659	31.85309	15.9189	---	---	---	2.00095798

TABLE 3: Genes down-regulated in Stage 3 Prostate Cancer

Probe ID	Stage 3	Normal	GeneAccession	Gene Symbol	mRNA Accession	Fold-Decrease
16651603	52.9034	105.88	---	---	---	0.499670937
16653145	29.2694	58.587	---	---	---	0.499591034
16943919	32.4065	64.902	NM_024616	C3orf52	NM_024616	0.499312658
16705379	31.2127	62.545	---	---	---	0.499041813
16721671	16.8941	33.853	---	---	---	0.499041742
16653071	36.0014	72.15	---	---	---	0.498980387
16797981	7.8745	15.787	---	---	---	0.498785798
16651687	4.49453	9.015	---	---	---	0.498563665
16656535	9.7865	19.632	---	---	---	0.498501668
16898489	20.3612	40.853	---	---	---	0.49839902
16696120	90.5696	181.74	NM_001937	DPT	NM_001937	0.498360746
16650767	24.3208	48.809	---	---	---	0.498282599
16760327	4.64505	9.3233	---	---	---	0.498217591
17028007	1812.28	3642.6	---	---	---	0.497524699
17030833	1397.39	2808.7	---	---	---	0.497524639
17038297	1735.2	3488.1	---	---	---	0.49745881
17038309	908.232	1825.7	---	---	---	0.497458789
17026331	1337.77	2689.2	---	---	---	0.497458731
16771546	197.353	396.85	---	---	---	0.49729497
16769159	124.756	251.07	NM_024312	GNPTAB	NM_024312	0.496904016
16654535	9.85244	19.834	---	---	---	0.496743432
16655575	6.10951	12.307	---	---	---	0.496422947
16989421	24.0748	48.498	ENST00000504	PCBD2 // PCE	ENST0000050435	0.496412294
16726880	1073.87	2164.2	---	---	neat1.2	0.496191022
16979944	20.5733	41.468	---	---	---	0.496123158
17006881	1188.71	2397.1	NM_005346	HSPA1B	NM_005346	0.495902498
16955933	7.5893	15.306	---	---	---	0.495838364
16900499	97.3531	196.35	---	---	---	0.495806432
16775611	5.23662	10.564	---	---	BC031243	0.495708029
16653585	17.872	36.066	---	---	---	0.495540761
16694229	7.17262	14.481	---	---	ENST0000045837	0.495313912
17125622	234.844	474.26	---	---	---	0.495180807
16896617	7.1214	14.384	---	---	TCONS_00004211	0.495090114
16855898	19.3672	39.14	NM_182511	CBLN2	NM_182511	0.4948191
16655981	19.1164	38.638	---	---	---	0.494753248
16653569	12.2885	24.838	---	---	---	0.494749518
16653749	22.3676	45.218	---	---	---	0.494658362
16777963	41.2675	83.502	---	---	ENST0000039099	0.494210077
16812168	9.44189	19.117	---	---	---	0.493889961
16721680	44.9979	91.115	---	---	---	0.493855765
16998549	3.033	6.1423	---	---	ENST0000036291	0.493790421
16707149	53.9098	109.21	NM_000043	FAS	NM_000043	0.493617736
16650941	4.56291	9.2468	---	---	---	0.493457796
16652757	8.06057	16.336	---	---	---	0.493412853
16972420	10.7529	21.804	---	---	---	0.493159525
16770461	13.7498	27.895	---	---	---	0.492904585
16880230	14.9553	30.353	---	---	---	0.492710302
17112184	266.814	541.56	---	---	---	0.49267299

TABLE 3: Genes down-regulated in Stage 3 Prostate Cancer

16654533	38.3531	77.853	---	---	---	0.492634268
16651333	5.80226	11.782	---	---	---	0.492455802
17106679	4.07454	8.2762	---	---	---	0.492322173
16655167	27.7381	56.403	---	---	---	0.491784471
16656787	17.8778	36.353	---	---	---	0.491781719
16650671	8.06057	16.392	---	---	---	0.491742543
16985794	100.746	204.91	NR_033417	GTF2H2B	NR_033417	0.491667911
16654357	2.6301	5.3503	---	---	---	0.491583951
17120498	34.9448	71.125	---	---	---	0.491317283
16849274	74.5581	151.77	NM_006456	ST6GALNAC2	NM_006456	0.491255805
16752017	143.853	292.85	---	---	---	0.491212488
16657175	8.89695	18.115	---	---	---	0.491141572
16983456	23.4014	47.655	---	---	---	0.491061009
16921648	59.4096	120.99	---	---	TCONS_I2_00017	0.491028447
16844622	5.42345	11.045	NM_033062	KRTAP4-2	NM_033062	0.491012219
16655893	3.88665	7.9156	---	---	---	0.491012039
17016375	5.00093	10.185	NM_005323	HIST1H1T	NM_005323	0.491012024
16656569	22.8652	46.578	---	---	---	0.4908974
16666799	4.33941	8.841	NM_012128	CLCA4	NM_012128	0.490829135
16656401	16.1359	32.92	---	---	---	0.490161151
16692553	876.634	1788.7	---	---	---	0.490082287
16650875	7.92231	16.175	---	---	---	0.48978829
16844305	11.2958	23.065	---	---	TCONS_0002606	0.489726409
16818015	6.7526	13.795	NR_002966	SNORA30	NR_002966	0.48950471
16847432	12.882	26.316	NM_032043	BRIP1	NM_032043	0.489504465
16655959	9.21209	18.832	---	---	---	0.489179687
16908650	10.489	21.443	ENST00000446	ATG9A // ATG	ENST0000044671	0.489154999
16655541	5.86647	11.994	---	---	---	0.489125956
16650111	41.3987	84.648	---	---	---	0.489070402
17046750	8.94544	18.292	---	---	TCONS_0001415	0.489044892
16894998	30.9328	63.296	AK299244	C2orf43	AK299244	0.488704811
16890402	4.46525	9.1377	---	---	---	0.488659455
16655629	10.3737	21.242	---	---	---	0.488355934
16889526	5.92183	12.15	---	---	---	0.487387327
16935485	170.464	349.93	---	---	---	0.487142146
16960922	33.9159	69.644	NM_206963	RARRES1	NM_206963	0.486991093
16650269	8.27026	16.986	---	---	---	0.48689705
16653729	110.102	226.35	---	---	---	0.486431417
17061099	20.8271	42.825	ENST00000488	RASA4B	ENST0000048828	0.4863269
16880240	8.69359	17.878	---	---	---	0.486278897
16673296	10.1549	20.883	---	---	---	0.486278893
16773581	8.69359	17.878	---	---	---	0.486278841
16650157	17.6173	36.243	---	---	---	0.486083504
16688162	8.44927	17.386	---	---	---	0.485970406
16963218	6.59049	13.564	---	---	---	0.485892261
17075601	10.8323	22.295	---	---	---	0.485863403
16988301	741.835	1527.4	NM_005509	DMXL1	NM_005509	0.485688509
16650851	4.68735	9.6515	---	---	---	0.485662471
16653869	5.6622	11.677	---	---	---	0.484912253

TABLE 3: Genes down-regulated in Stage 3 Prostate Cancer

17087100	5.44907	11.237	BX648970	C9orf3	BX648970	0.484912207
16945870	20.3465	41.959	NM_001063	TF	NM_001063	0.484912205
16655035	9.8085	20.227	---	---	---	0.484912035
16769196	20.5497	42.399	---	---	---	0.484674031
16663809	25.8534	53.353				0.484570906
16661926	24.4389	50.436				0.484552598
16673874	4.63632	9.5719	---	---	ENST0000045080	0.484369512
16896396	6.62017	13.676	---	---	---	0.484064249
16947107	78.996	163.2	NM_002563	P2RY1	NM_002563	0.484054611
17006863	1482.93	3064.8	NM_005345	HSPA1A	NM_005345	0.483864295
16654597	52.3056	108.13	---	---	---	0.483732239
16653661	7.03034	14.544	---	---	---	0.483397382
16656551	6.62468	13.705	---	---	---	0.48337434
16844509	113.866	235.63	NM_015515	KRT23	NM_015515	0.483235194
16656537	3.77906	7.8251	---	---	---	0.482939488
16809915	17.135	35.501	NR_002927	HSP90AB4P	NR_002927	0.482658149
16656927	22.8554	47.353	---	---	---	0.482658063
16654819	2.61352	5.4174	---	---	---	0.482434687
16655277	60.7899	126.05	---	---	---	0.482255746
16851376	3.6108	7.4901	---	---	---	0.482079182
16904573	42.4064	87.986	---	---	ENST0000042888	0.481967354
16939897	29.9175	62.075	NM_018651	ZNF167	NM_018651	0.481957698
16942866	26.1385	54.235	NM_001167674	CADM2	NM_001167674	0.481944565
16656087	20.4685	42.5	---	---	---	0.481610484
16835630	130.853	271.85				0.481337531
16693082	124.737	259.47	NM_003944	SELENBP1	NM_003944	0.480732655
16651075	2.99097	6.2286	---	---	---	0.480199403
16650497	2.99097	6.2286	---	---	---	0.480199403
16655185	5.9304	12.369	---	---	---	0.479468416
16949537	70.8394	147.76	NM_003722	TP63	NM_003722	0.479422549
16656003	24.8537	51.853	---	---	---	0.479309048
16790244	122.353	255.35				0.479152593
16650183	3.87891	8.0967	---	---	---	0.479075366
16909551	38.4347	80.25	NM_024409	NPPC	NM_024409	0.478938716
16744705	23.8543	49.853				0.478490806
16769144	3.68214	7.7054	NM_001177949	SYCP3	NM_001177949	0.477867783
16655497	22.3563	46.792	---	---	---	0.477777987
17123338	8.493	17.78	---	---	---	0.477669648
16654975	3.15252	6.6037	---	---	---	0.47738661
16655589	12.5807	26.353	---	---	---	0.477386384
16651293	13.6658	28.63	---	---	---	0.477331217
16653653	3.81904	8.0097	---	---	---	0.476801163
16691640	13.1838	27.651	NM_001159352	REG4	NM_001159352	0.476796537
16654631	10.9833	23.057	---	---	---	0.476359335
17118666	39.1704	82.248	---	---	---	0.476246016
16650371	80.2962	168.63	---	---	---	0.476156023
17001901	34.518	72.505	NM_001447	FAT2	NM_001447	0.476077019
16896561	174.172	365.88	NM_000104	CYP1B1	NM_000104	0.476041961
16657031	20.9633	44.06	---	---	---	0.475792111

TABLE 3: Genes down-regulated in Stage 3 Prostate Cancer

16653865	12.2729	25.801	---	---	---	0.475673924
17097472	62.7344	131.98	NM_000031	ALAD	NM_000031	0.475340171
16842471	41.8622	88.089				0.475228015
16960262	9.92157	20.879	---	---	TCONS_00006671	0.47519788
16716659	44.3178	93.273	NM_006744	RBP4	NM_006744	0.475138271
16904580	49.5223	104.23	AB082523	TTC21B	AB082523	0.475138232
16893466	48.8531	102.85				0.474979364
16755267	7.90586	16.656	---	---	hsa-mir-3685	0.47465442
16657279	22.6271	47.743	---	---	---	0.473931818
16991988	13.4509	28.39	---	---	ENST0000051734	0.473798078
16655703	6.84938	14.456	---	---	---	0.473797983
16855111	8.12874	17.157	NM_001039360	ZBTB7C	NM_001039360	0.473797894
17022354	13.775	29.091				0.473507689
16934241	3.24323	6.8494				0.473507598
16650693	3.91117	8.26	---	---	---	0.473507487
16655761	8.82514	18.642	---	---	---	0.473406763
16654979	6.17382	13.056	---	---	---	0.472869763
16650691	5.33585	11.285	---	---	---	0.472845858
16735810	277.853	587.85				0.472657289
16677201	12.32	26.066	NM_016448	DTL	NM_016448	0.472649518
16653735	9.13883	19.335	---	---	---	0.472649445
17097211	95.6426	202.41	NM_001146108	PTGR1	NM_001146108	0.472527032
17118930	7.97536	16.889	---	---	---	0.472224673
16945187	21.6898	45.935	---	---	---	0.472186822
16652869	24.962	52.915	---	---	---	0.471739722
16656029	11.5979	24.587	---	---	---	0.471699203
16730784	4.86716	10.319	---	---	---	0.471673198
16651047	4.86716	10.319	---	---	---	0.471673198
17046325	2.91227	6.1743	---	---	---	0.471673193
16773919	141.855	300.83	NM_004795	KL	NM_004795	0.471543629
16656199	10.7927	22.889	---	---	---	0.471529083
16651085	8.0195	17.014	---	---	---	0.471355597
16650251	2.0888	4.4345	---	---	---	0.471034695
16840349	3.50302	7.4369	---	---	---	0.471034668
16885315	20.4393	43.45	---	---	---	0.470413172
16651011	6.74453	14.339	---	---	---	0.470348821
16775811	83.2027	176.93	NM_005708	GPC6	NM_005708	0.470255297
17067801	89.2226	189.74	NM_080872	UNC5D	NM_080872	0.470235369
16654673	7.65958	16.293	---	---	---	0.470107044
16650763	7.68662	16.392	---	---	---	0.468929376
16815711	3.63715	7.758	---	---	---	0.468825555
16654791	3.52748	7.5241	---	---	---	0.468825524
16654483	5.90733	12.603	---	---	---	0.468730649
16653267	15.6723	33.444	---	---	---	0.468606544
16736405	8.75922	18.695	NM_004179	TPH1	NM_004179	0.468520536
16788697	103.194	220.26	NR_003221	SNORD114-28	NR_003221	0.468504314
16769250	327.724	700	NM_001111283	IGF1	NM_001111283	0.468179666
16842563	27.3169	58.366	---	---	---	0.468025498
16656575	35.6295	76.15	---	---	---	0.467887254

TABLE 3: Genes down-regulated in Stage 3 Prostate Cancer

16951544	2.62692	5.6172	---	---	---	0.467654201
16654677	8.40703	17.977	---	---	---	0.467652031
16654633	15.4646	33.112	---	---	---	0.467040592
16656207	2.88568	6.1834	---	---	---	0.466677416
16960046	8.26131	17.707	---	---	---	0.46654922
16949741	9.16272	19.656	---	---	---	0.46615698
17104672	35.3531	75.853	---	---	---	0.466073055
16956314	11.3916	24.451	---	---	---	0.465884655
16656405	9.48594	20.361	---	---	---	0.465884393
16656831	6.39774	13.733	---	---	---	0.465874158
16788488	27.0165	57.996	---	---	meg3	0.465833551
16655085	24.8537	53.353	---	---	---	0.465833475
16790135	4.04858	8.6936	---	---	---	0.465697263
16785099	12.3721	26.567	---	---	GENSCAN000000	0.46569719
16653435	4.90962	10.543	---	---	---	0.465684353
16653333	4.90962	10.543	---	---	---	0.465684353
16656939	22.4866	48.299	---	---	---	0.465572947
17125106	113.68	244.32	---	---	---	0.465286717
16654593	5.26595	11.32	---	---	---	0.465189461
16654661	38.6355	83.105	---	---	---	0.464897451
16771437	16.8941	36.353	---	---	---	0.464722678
16771467	30.3531	65.353	---	---	---	0.464447899
17124624	8.18514	17.628	---	---	---	0.464337379
16925450	6.69435	14.431	---	---	---	0.463883809
16653403	73.7417	159.05	---	---	---	0.463637375
16653301	73.7417	159.05	---	---	---	0.463637375
16693409	10.2495	22.115	NM_005621	S100A12	NM_005621	0.463476
16926393	6.4849	14.006	NM_198694	KRTAP10-5	NM_198694	0.463023444
16656695	29.8978	64.618	---	---	---	0.462687207
16990203	8.45584	18.278	NR_026705	VTRNA1-3	NR_026705	0.462624084
16654619	5.07267	10.969	---	---	---	0.462470974
16893452	74.3531	160.85	---	---	---	0.462242257
16664359	51.9083	112.32	---	---	TCONS_0000019	0.462163471
16916289	58.8567	127.4	BC134417	C20orf96	BC134417	0.461971031
16937741	27.217	58.937	NM_138711	PPARG	NM_138711	0.461801482
16855682	15.287	33.119	---	---	---	0.461585519
16886656	27.135	58.796	NM_002239	KCNJ3	NM_002239	0.461508829
16654609	14.5788	31.597	---	---	---	0.461396092
16976891	23.918	51.873	---	---	AF086310	0.461090189
16652647	6.2286	13.509	---	---	---	0.461079954
16651983	6.2286	13.509	---	---	---	0.461079954
16666336	30.7015	66.589	NM_030965	ST6GALNAC5	NM_030965	0.461060558
16651683	8.60823	18.688	---	---	---	0.460619433
16694701	31.395	68.183	NM_001878	CRABP2	NM_001878	0.460453539
16944325	4.63814	10.078	NM_006952	UPK1B	NM_006952	0.460214363
16995455	12.1778	26.461	---	---	---	0.460214057
16655051	12.2102	26.537	---	---	---	0.460113357
16800667	26.2304	57.022	---	---	---	0.460008783
16650137	7.76161	16.876	---	---	---	0.45991773

TABLE 3: Genes down-regulated in Stage 3 Prostate Cancer

16992672	7.6181	16.569	---	---	---	0.459766474
16656793	4.14352	9.015	---	---	---	0.459627705
16663797	7.31245	15.917				0.459411033
16860550	8.87909	19.367	NM_001110822	TDRD12	NM_001110822	0.458454469
16686734	3.45241	7.5316	---	---	TCONS_I2_00002	0.458388606
16653565	3.58012	7.8105	---	---	---	0.458371124
16950987	7.12245	15.552	---	---	---	0.457990371
16740567	3.72778	8.1437				0.457752043
16698504	129.608	283.51	NM_001973	ELK4	NM_001973	0.457162529
16683377	45.6004	99.761	NM_002167	ID3	NM_002167	0.457097242
16655263	5.49885	12.038	---	---	---	0.456772699
16775301	13.9128	30.5	---	---	sca8	0.456155398
16652991	11.2834	24.738	---	---	---	0.456124351
16657261	9.14658	20.065	---	---	---	0.455845196
16651035	4.68735	10.283	---	---	---	0.455834776
16886417	24.2921	53.32	NM_177964	LYPD6B	NM_177964	0.455589866
16654623	33.2179	72.916	---	---	---	0.45556696
16880237	9.67821	21.262				0.455191387
16921679	22.0347	48.427	NM_024944	CHODL	NM_024944	0.455007536
17066921	37.066	81.509	NM_014265	ADAM28	NM_014265	0.454745911
16650585	8.41512	18.509	---	---	---	0.454641028
16651663	36.2727	79.86	---	---	---	0.454203686
16855781	48.6486	107.13	NM_032160	DSEL	NM_032160	0.454098437
16652763	4.74387	10.458	---	---	---	0.453606965
16862375	24.463	53.947	NR_001278	CYP2B7P1	NR_001278	0.453461718
17119538	5.93348	13.085	---	---	---	0.453452318
17119502	5.93348	13.085	---	---	---	0.453452318
16724755	6.73817	14.861	NM_032681	SPRYD5	NM_032681	0.453427368
16656613	96.0192	211.94	---	---	---	0.453052349
16824810	58.5763	129.39	NM_001888	CRYM	NM_001888	0.452708539
16675398	46.4652	102.74	NM_000186	CFH	NM_000186	0.452280912
16788620	114.951	254.37	NR_003195	SNORD114-3	NR_003195	0.451910644
17018392	12.4669	27.607				0.451576389
17017189	23.8543	52.853				0.451331142
16655741	9.2677	20.538	---	---	---	0.451252183
16992341	60.4488	133.96				0.451244137
16772256	4.27903	9.4852	---	---	TCONS_0002142	0.451125956
16650301	15.3953	34.129	---	---	---	0.451090844
16655807	25.8534	57.353	---	---	---	0.450775364
16752019	41.8531	92.853				0.450745425
16653089	3.45462	7.6692	---	---	---	0.45045208
16664978	36.1686	80.297	NM_147161	ACOT11	NM_147161	0.450435415
16984304	361.488	802.77	NM_000587	C7	NM_000587	0.450300796
16654447	5.15674	11.458	---	---	---	0.450069037
17017196	144.853	321.85				0.45005967
17118648	260.94	580.21	---	---	---	0.449732004
16662357	260.94	580.21	---	---	---	0.449732004
16887936	143.179	318.55	NM_002148	HOXD10	NM_002148	0.449471259
16657191	4.30387	9.5784	---	---	---	0.449329811

TABLE 3: Genes down-regulated in Stage 3 Prostate Cancer

16725871	56.8913	126.62	NM_003357	SCGB1A1	NM_003357	0.449302488
17022384	16.288	36.277	---	---	---	0.448984976
17023350	3.41641	7.611	---	---	---	0.448877047
16650303	9.86329	21.977	---	---	---	0.448810548
16650737	36.2017	80.687	---	---	---	0.448669812
16872796	56.9881	127.1	NM_198477	CXCL17	NM_198477	0.448377871
16755900	126.063	281.17	---	---	---	0.448355358
17124408	80.5244	179.63	---	---	---	0.448291719
16948136	63.3245	141.48	---	---	---	0.447589641
16656765	3.81296	8.5196	---	---	---	0.447550283
16652971	7.22231	16.141	---	---	---	0.447449486
16657085	37.9856	84.915	---	---	---	0.447335707
16656691	15.2429	34.08	---	---	---	0.447267806
16655387	23.0429	51.576	---	---	---	0.446774923
16652137	2.57146	5.7569	---	---	---	0.446676676
16652195	2.38983	5.3503	---	---	---	0.44667655
16689581	25.2733	56.605	NM_053274	GLMN	NM_053274	0.44648251
16656417	9.80203	21.954	---	---	---	0.446473001
16653877	26.4889	59.351	---	---	---	0.446308478
16654465	11.3459	25.423	---	---	---	0.446286798
16679480	39.2726	88.056	---	---	---	0.44599406
16656587	19.2937	43.286	---	---	---	0.445729471
16656497	2.96382	6.659	---	---	---	0.445083311
17076477	9.08117	20.43	---	---	TCONS_00014971	0.444507974
16650619	2.78606	6.2679	---	---	---	0.444496438
17016403	2.76689	6.2286	NM_003534	HIST1H3G	NM_003534	0.444223421
16651669	16.9857	38.254	---	---	---	0.444026562
16894588	17.5276	39.48	---	---	TCONS_00003201	0.443959278
16820386	5.87079	13.225	---	---	ENST0000039114	0.443920876
16656567	3.52748	7.9462	---	---	---	0.443920783
16788685	51.523	116.06	NR_003215	SNORD114-22	NR_003215	0.443920747
16651711	3.57908	8.0668	---	---	---	0.44367723
17060810	128.609	290.07	---	---	ENST0000042008	0.443373662
16720049	38.3957	86.612	NM_025092	ATHL1	NM_025092	0.443306638
16973210	34.7512	78.49	---	---	TCONS_00008981	0.442748823
17094389	34.3776	77.65	---	---	TCONS_I2_00028	0.442725348
16970536	46.4266	104.87	NM_014278	HSPA4L	NM_014278	0.442723979
16654865	18.2354	41.198	---	---	---	0.442626106
16657425	5.55715	12.557	---	---	---	0.442550543
16655053	6.7751	15.309	---	---	---	0.442545644
17077974	60.3014	136.39	NM_020361	CPA6	NM_020361	0.442123022
16651675	9.45718	21.4	---	---	---	0.441930194
16702501	4.64751	10.554	---	---	---	0.440357914
17094656	30.0892	68.331	---	---	TCONS_00016331	0.440344851
16859117	20.1942	45.89	NM_173483	CYP4F22	NM_173483	0.440053606
16651179	12.7823	29.066	---	---	---	0.439762887
16655021	9.24687	21.031	---	---	---	0.439673466
16748662	32.0394	72.879	---	---	---	0.439625016
16807797	26.2663	59.751	NM_178034	PLA2G4D	NM_178034	0.439596726

TABLE 3: Genes down-regulated in Stage 3 Prostate Cancer

16656127	8.47645	19.3	---	---	---	0.439204893
17110525	5.3427	12.19	ENST00000428	ZNF630 // ZN	ENST0000042846	0.438279172
16809913	8.59758	19.634	---	---	---	0.437897217
16740563	13.5087	30.853	---	---	---	0.437839674
16655879	3.43761	7.8527	---	---	---	0.437761168
16779686	9.6714	22.094	NM_020866	KLHL1	NM_020866	0.437742608
16788683	55.3213	126.4	NR_003214	SNORD114-21	NR_003214	0.437668968
16654231	22.2999	50.984	---	---	---	0.43739298
16654135	10.2352	23.408	---	---	---	0.437257184
17090320	24.9358	57.038	---	---	---	0.437177102
16658583	2.99097	6.8494	---	---	---	0.436677544
16656901	27.4543	62.878	---	---	---	0.436626398
16653793	66.8114	153.07	---	---	---	0.436467698
16651617	15.6827	35.937	---	---	---	0.436387547
16653239	7.57976	17.398	---	---	---	0.435661649
16655495	15.1733	34.847	---	---	---	0.435424992
16654167	5.61669	12.909	---	---	---	0.435107842
17009760	33.5859	77.222	NM_001010872	FAM83B	NM_001010872	0.434927882
16654773	56.7593	130.52	---	---	---	0.434866803
17097775	168.472	387.47	---	---	TCONS_00015871	0.43480164
16652227	5.78504	13.307	---	---	---	0.434732459
16792995	6.41754	14.764	---	---	TCONS_00023107	0.434675338
16939479	24.0619	55.407	NM_001248	ENTPD3	NM_001248	0.434273766
16652827	8.0444	18.556	---	---	---	0.433525601
17059355	70.3828	162.58	NM_152754	SEMA3D	NM_152754	0.43290086
16817677	28.4178	65.684	NM_145239	PRRT2	NM_145239	0.432640775
16653711	66.4298	153.71	---	---	---	0.432185389
17104408	27.3592	63.339	---	---	---	0.431947037
16771545	3.24323	7.5241	---	---	---	0.431047576
16897690	7.43399	17.254	---	---	---	0.430856341
16900503	6.2286	14.456	---	---	---	0.430856241
17121990	6.32967	14.707	---	---	---	0.430395835
16652547	11.5684	26.893	---	---	---	0.430169902
17113549	67.9687	158.03	NM_020721	KIAA1210	NM_020721	0.430104209
16653433	3.50076	8.1395	---	---	---	0.43009326
16653331	3.50076	8.1395	---	---	---	0.43009326
16728384	10.6188	24.696	NR_031624	MIR548K	NR_031624	0.429985212
16993404	4.4345	10.319	---	---	---	0.429744101
16826273	4.48872	10.445	AK309475	ITFG1	AK309475	0.429744062
16801473	8.20209	19.086	NM_020980	AQP9	NM_020980	0.429743948
17021235	31.6175	73.605	NR_026669	SNAP91	NR_026669	0.429559158
16657197	59.8531	139.35	---	---	---	0.429506771
16650267	25.0815	58.416	---	---	---	0.429363218
17125094	20.8975	48.686	---	---	---	0.429225086
16997013	11.3439	26.446	NM_001515	GTF2H2	NM_001515	0.428939343
16651615	21.3692	49.821	---	---	---	0.428923234
16764097	22.5007	52.469	---	---	---	0.428836536
16655487	46.1667	107.85	---	---	---	0.428066849
16653467	15.2285	35.608	---	---	---	0.427668387

TABLE 3: Genes down-regulated in Stage 3 Prostate Cancer

16653365	15.2285	35.608	---	---	---	0.427668387
16907154	3.61238	8.4551	---	---	---	0.427240202
16660682	23.5145	55.047	---	---	---	0.427173136
16788665	35.1456	82.313	NR_003208	SNORD114-15	NR_003208	0.426972712
16886625	18.5687	43.489	NM_052917	GALNT13	NM_052917	0.426969692
16881061	9.31022	21.809	---	---	---	0.426903759
17111435	25.6917	60.196	NM_020922	WNK3	NM_020922	0.426798138
16951591	27.6139	64.822	---	---	ENST0000042529	0.425994815
16904576	75.0847	176.35	---	---	ENST0000045710	0.42578027
16807317	13.6991	32.188	---	---	---	0.425596178
16980122	22.4742	52.829	---	---	---	0.425410585
16653667	8.10858	19.079	---	---	---	0.424998034
17121048	35.4031	83.352	---	---	---	0.424742906
16654505	17.5587	41.345	---	---	---	0.424685236
16744704	5.01089	11.807	---	---	---	0.424414945
16718592	39.8461	93.917	NM_001001936	AFAP1L2	NM_001001936	0.42426752
16817637	74.2687	175.17	---	---	---	0.423970553
16656697	19.0144	44.881	---	---	---	0.423662499
16654683	4.60644	10.887	---	---	---	0.42311895
16795612	75.7455	179.07	NM_183387	EML5	NM_183387	0.422999346
16657129	14.4502	34.2	---	---	---	0.42251922
16658941	72.3531	171.35	---	---	---	0.42224576
16899764	18.8766	44.72	NM_003896	ST3GAL5	NM_003896	0.422103454
16654257	9.56589	22.664	---	---	---	0.422067697
16833224	3.29807	7.8141	NM_005623	CCL8	NM_005623	0.422067595
16707695	9.06579	21.541	NM_018063	HELLS	NM_018063	0.420861491
16657069	14.2441	33.874	---	---	---	0.420498324
16653633	2.96995	7.0675	---	---	---	0.420223489
16983152	33.3883	79.509	AK095831	SNORD123	AK095831	0.419931256
17053304	33.9459	80.912	---	---	---	0.419540911
16769740	44.3531	105.85	---	---	---	0.419006151
17006568	22.1387	52.864	NM_007109	TCF19	NM_007109	0.418783296
16656159	9.14035	21.843	---	---	---	0.418462324
17086947	10.0841	24.11	---	---	ENST0000043431	0.418244024
17010104	348.452	833.97	NM_001105531	FAM135A	NM_001105531	0.417823854
16652163	5.10041	12.231	---	---	---	0.417011573
16886800	4.415	10.588	---	---	ENST0000051591	0.416998707
16650661	4.49733	10.79	---	---	---	0.416807616
16978777	4.02346	9.6584	---	---	---	0.416578194
16657171	16.4141	39.414	---	---	---	0.41645029
16678309	13.6262	32.742	---	---	---	0.416166877
16653717	67.5539	162.49	---	---	---	0.415730511
16744700	77.8531	187.35	---	---	---	0.415542043
16998293	18.782	45.222	NM_002064	GLRX	NM_002064	0.415325182
16654193	2.22562	5.3605	---	---	---	0.415187255
16769744	15.9189	38.353	---	---	---	0.415062407
16980834	9.48594	22.855	---	---	---	0.415042154
16656845	12.5261	30.18	---	---	---	0.415042075
16654873	12.2414	29.497	---	---	---	0.415011503

TABLE 3: Genes down-regulated in Stage 3 Prostate Cancer

16882366	9.59938	23.151	---	---	---	TCONS_0000483	0.414639946
16939503	5.25554	12.677	---	---	---	---	0.414587159
16743515	17.4016	41.985	---	---	---	---	0.414467311
16788681	7.17421	17.31	NR_003213	SNORD114-2C	NR_003213	---	0.414461949
17095328	29.3531	70.853	---	---	---	---	0.414281379
16654885	46.8315	113.1	---	---	---	---	0.414054058
17119490	14.2586	34.458	---	---	---	---	0.413794494
16921937	22.8205	55.152	---	---	---	TCONS_0002874	0.413774778
16752007	16.8941	40.853	---	---	---	---	0.413533021
17001063	79.1755	191.72	NM_030964	SPRY4	NM_030964	---	0.412984403
17112498	28.6771	69.453	NM_024921	POF1B	NM_024921	---	0.412901104
17116059	9.05546	21.936	---	---	---	---	0.412814325
16656891	2.56754	6.2286	---	---	---	---	0.412217513
16725835	22.8832	55.599	NM_002407	SCGB2A1	NM_002407	---	0.411579513
16654949	4.62473	11.241	---	---	---	---	0.411414513
16650621	5.8584	14.246	---	---	---	---	0.411236489
16827564	12.9838	31.58	---	---	---	---	0.411137154
16656313	4.47519	10.898	---	---	---	---	0.41064945
17094372	4.74287	11.552	---	---	---	AK093724	0.410553487
16655465	18.8154	45.83	---	---	---	---	0.410545912
16655041	99.1495	241.52	---	---	---	---	0.410516351
16717676	10.4784	25.535	---	---	---	TCONS_0001858	0.410352779
16656571	32.2915	78.731	---	---	---	---	0.410147667
17015196	13.4129	32.747	---	---	---	TCONS_0001205	0.409590758
16653439	7.52407	18.378	---	---	---	---	0.409412256
16653337	7.52407	18.378	---	---	---	---	0.409412256
16663005	4.70691	11.501	---	---	---	---	0.409252315
16934242	3.11054	7.6146	---	---	---	---	0.408497436
16657205	14.2983	35.036	---	---	---	---	0.408102249
16650923	7.5014	18.396	---	---	---	---	0.407762518
16928816	347.029	851.73	NM_021076	NEFH	NM_021076	---	0.407441291
16652917	31.7333	77.929	---	---	---	---	0.407208736
16656977	5.19727	12.768	---	---	---	---	0.407057789
17122074	6.82896	16.777	---	---	---	---	0.407051284
16958844	135.122	332.28	NM_001145661	GATA2	NM_001145661	---	0.406653445
16650141	29.3361	72.232	---	---	---	---	0.406135569
16656829	12.6169	31.101	---	---	---	---	0.40566706
16880426	3.10719	7.6608	---	---	---	---	0.40559288
16653697	51.8531	127.85	---	---	---	---	0.405567874
16651231	6.84938	16.894	---	---	---	---	0.405430058
16764107	8.06057	19.885	---	---	---	---	0.405352181
16652949	3.66973	9.0552	---	---	---	---	0.40526316
16657399	11.7606	29.09	---	---	---	---	0.404281862
16655463	5.0637	12.532	---	---	---	---	0.404073529
16650401	16.005	39.613	---	---	---	---	0.404031849
16990455	23.1464	57.297	---	---	---	TCONS_0001011	0.403972322
17088061	6.68916	16.559	---	---	---	---	0.403962224
16651161	2.76689	6.8494	---	---	---	---	0.403962141
16655635	20.6664	51.209	---	---	---	---	0.403567629

TABLE 3: Genes down-regulated in Stage 3 Prostate Cancer

17119822	13.1023	32.506	---	---	---	0.403078675
16900201	17.3524	43.068	NR_003366	ANKRD20B	NR_003366	0.402904547
16650043	47.1388	117.13	---	---	---	0.402462907
16722978	14.9596	37.23	---	---	GENSCAN000000	0.401817414
16654897	25.0511	62.37	---	---	---	0.401656065
16767983	11.719	29.184	---	---	GENSCAN000000	0.401548565
16650781	18.4219	45.891	---	---	---	0.401429005
16653097	7.61472	18.973	---	---	---	0.401346285
16656961	10.9243	27.254	---	---	---	0.40082695
16650053	32.5214	81.2	---	---	---	0.400510075
16735303	11.46	28.615	NR_036678	LOC283299	NR_036678	0.400492473
16976360	4.57298	11.421	---	---	---	0.400391813
16877097	15.9189	39.853	NM_001039362	ATP6V1C2	NM_001039362	0.399440194
16735826	10.3189	25.853	---	---	---	0.399132647
16788616	135.342	339.6	NR_003193	SNORD114-1	NR_003193	0.398528636
16838238	3.94895	9.9098	---	---	AK093770	0.398490964
16857929	54.9188	137.86	---	---	---	0.398379534
16963127	21.6725	54.447	NM_018406	MUC4	NM_018406	0.398047678
17060287	149.357	375.34	NR_033807	CYP3A5	NR_033807	0.397923485
16663804	6.61906	16.642	---	---	---	0.397736903
16660675	9.48594	23.854	---	---	---	0.397662555
16655935	2.99097	7.5241	---	---	---	0.397520199
16651673	24.4389	61.484	---	---	---	0.397486224
16654319	3.51174	8.8369	---	---	---	0.397395192
16653067	6.3276	15.928	---	---	---	0.397263868
16689182	31.281	78.818	NM_001184765	ODF2L	NM_001184765	0.396875039
16655921	5.32691	13.431	---	---	---	0.396625092
16886732	9.03345	22.786	---	---	TCONS_0000391	0.396442115
16656377	18.8113	47.497	---	---	---	0.396048411
16656529	7.12313	17.991	---	---	---	0.395917176
16889268	79.1416	200.07	NM_001159	AOX1	NM_001159	0.395564162
16656945	13.7014	34.645	---	---	---	0.395475704
16788693	19.2657	48.726	NR_003219	SNORD114-26	NR_003219	0.395388332
16917810	8.5323	21.582	---	---	TCONS_0002863	0.395335924
16992338	64.3531	162.85	---	---	---	0.395160666
16650393	37.2175	94.237	---	---	---	0.394935147
16968098	23.6206	59.991	NM_006419	CXCL13	NM_006419	0.393736676
16653781	9.09574	23.167	---	---	---	0.392617833
16655967	8.8438	22.526	---	---	---	0.392612078
17117888	9.99925	25.479	---	---	AK098835	0.39244922
16802232	38.791	98.922	NR_027654	SMAD6	NR_027654	0.392135628
17092115	19.7421	50.363	---	---	ENST0000045738	0.391997206
16763410	38.0984	97.27	NM_001145108	NELL2	NM_001145108	0.39167649
16650021	4.18324	10.683	---	---	---	0.391581352
16904586	40.5795	103.64	AK021519	TTC21B	AK021519	0.391541233
16880244	6.2286	15.919	---	---	---	0.391270016
16653045	3.61205	9.2386	---	---	---	0.390973881
16894911	82.7281	211.94	NM_001006946	SDC1	NM_001006946	0.390337586
16650699	7.9951	20.483	---	---	---	0.390324705

TABLE 3: Genes down-regulated in Stage 3 Prostate Cancer

16652999	14.346	36.754	---	---	---	0.390322314
16676988	40.9638	105.01	NM_005525	HSD11B1	NM_005525	0.390098544
16655043	15.0684	38.638	---	---	---	0.389990372
16709553	55.891	143.36	NM_207303	ATRNL1	NM_207303	0.389876775
16653041	13.1725	33.796	---	---	---	0.389761551
16770456	6.38767	16.399	---	---	---	0.389509106
16653395	7.00862	17.997	---	---	---	0.389437382
16653293	7.00862	17.997	---	---	---	0.389437382
16887917	40.0524	102.88	NM_000523	HOXD13	NM_000523	0.389323648
16655633	7.71054	19.83	---	---	---	0.388840303
16949562	2.64515	6.8079	NR_030642	MIR944	NR_030642	0.388544181
17055501	163.371	420.58	NM_006408	AGR2	NM_006408	0.388437453
16651291	8.52818	21.966	---	---	---	0.388242439
16955699	32.2402	83.079	NM_003716	CADPS	NM_003716	0.388067233
16831434	20.5404	53.043	NM_018955	UBB	NM_018955	0.387241514
16656151	8.63101	22.293	---	---	---	0.387163161
16653257	4.59785	11.877	---	---	---	0.387135544
17122612	5.04645	13.04	---	---	---	0.387007273
16896814	7.06337	18.258	---	---	---	0.386873766
16650349	14.4484	37.353	---	---	---	0.386804472
16651397	7.52368	19.463	---	---	---	0.386560045
16654629	11.457	29.661	---	---	---	0.386260839
16918516	12.1695	31.523	---	---	---	0.386055418
16653159	5.88328	15.25	---	---	---	0.385787531
16655587	13.4141	34.771	---	---	---	0.385781513
16656681	12.285	31.876	---	---	---	0.385399648
16780885	38.947	101.14	NM_001080396	FAM155A	NM_001080396	0.385091974
16926043	42.3966	110.44	NM_003225	TFF1	NM_003225	0.383884351
16651659	3.92405	10.224	---	---	---	0.383799089
16740337	3.79237	9.8817	---	---	---	0.383777449
16655889	9.12718	23.79	---	---	---	0.383658086
16960567	28.8238	75.189	NM_023915	GPR87	NM_023915	0.383349909
17079423	6.84938	17.878	---	---	---	0.383122243
16727200	6.84938	17.878	---	---	---	0.383122243
16650457	43.3341	113.13	---	---	---	0.383054063
16655469	41.8531	109.35	---	---	---	0.382733457
17116822	16.5224	43.18	NR_001552	TTY16	NR_001552	0.382639708
16654961	32.2993	84.472	---	---	---	0.38236885
16780182	5.20806	13.645	---	---	TCONS_I2_00007	0.381671672
16969635	3.79776	9.9718	---	---	---	0.380850455
16797978	7.28874	19.156	---	---	TCONS_00023311	0.380491007
16650659	5.77628	15.188	---	---	---	0.380312426
16764941	150.769	396.65	NM_000424	KRT5	NM_000424	0.380100435
16755528	15.471	40.747	---	---	---	0.37967916
16653611	5.25869	13.866	---	---	---	0.379250944
16651311	15.6852	41.383	---	---	---	0.37902194
16756370	10.9798	28.977	NM_213594	RFX4	NM_213594	0.378918292
16700875	4.72967	12.492	---	---	ENST0000041209	0.378608863
16674841	7.30916	19.305	---	---	ENST0000045785	0.378608787

TABLE 3: Genes down-regulated in Stage 3 Prostate Cancer

16918305	3.45564	9.138	---	---	ENST0000045915	0.378160326
17020642	43.1676	114.19	NM_001851	COL9A1	NM_001851	0.378049481
16969711	5.99097	15.85	NM_006583	RRH	NM_006583	0.37797244
16987125	8.46148	22.388	NM_006467	POLR3G	NM_006467	0.377949344
16748835	16.5203	43.728	NM_004570	PIK3C2G	NM_004570	0.377793034
16800536	44.5686	118.05	NM_017434	DUOX1	NM_017434	0.377541944
16865678	10.3189	27.353				0.377246993
16861396	35.3531	93.853				0.37668548
17085558	22.2884	59.259	---	---	TCONS_0001568	0.376119411
16897662	17.4769	46.473	---	---	---	0.376070149
16657169	18.6879	49.706	---	---	---	0.375965167
16655569	15.9831	42.536	---	---	---	0.375751211
16926768	18.0939	48.176	---	---	TCONS_0002932	0.375582556
17049032	10.3983	27.739	NM_022820	CYP3A43	NM_022820	0.374860485
16650557	4.02577	10.74	---	---	---	0.374825239
16653437	11.5312	30.873	---	---	---	0.373505644
16653335	11.5312	30.873	---	---	---	0.373505644
16869653	231.972	621.18	NM_006145	DNAJB1	NM_006145	0.373436229
16679986	17.7652	47.68	---	---	TCONS_0000007	0.372594334
16852179	458.266	1230.5	NM_001146037	SLC14A1	NM_001146037	0.372428808
16836765	3.52748	9.4859	---	---	---	0.371863754
16835639	3.52748	9.4859				0.371863648
16771549	3.52748	9.4859				0.371863648
16856299	188.204	506.19	NM_001928	CFD	NM_001928	0.371806122
16650019	6.35643	17.108	---	---	---	0.371555148
16652591	14.2824	38.448	---	---	---	0.371476518
16651927	14.2824	38.448	---	---	---	0.371476518
16650327	8.25061	22.211	---	---	---	0.371459855
16655057	14.2866	38.476	---	---	---	0.371314659
16650333	12.9709	34.963	---	---	---	0.370993055
16654503	8.37121	22.572	---	---	---	0.370868002
16832101	11.5161	31.056	---	---	TCONS_I2_00011	0.370815265
16884045	10.1037	27.304	---	---	TCONS_I2_00015	0.370048884
16656671	49.0719	132.85	---	---	---	0.36937999
16928329	26.6583	72.373	NR_024494	LOC644165	NR_024494	0.368344825
16697370	58.8531	159.85	NM_000963	PTGS2	NM_000963	0.368170131
16735838	20.3612	55.353				0.367841054
16650739	3.33772	9.0763	---	---	---	0.36773841
16919547	27.2752	74.173	NM_003064	SLPI	NM_003064	0.367722673
16655467	16.8135	45.744	---	---	---	0.367551692
16656899	5.30993	14.456	---	---	---	0.367308162
16657255	8.08772	22.039	---	---	---	0.366979754
16653665	9.96571	27.179	---	---	---	0.36667508
16655735	2.89394	7.8925	---	---	---	0.366667803
17122140	191.049	521.05	---	---	---	0.366658683
16768559	42.9309	117.34	---	---	---	0.365857331
16948364	7.72978	21.146	---	---	---	0.3655505
16691459	16.3174	44.678	NM_024626	VTCN1	NM_024626	0.36521925
16654039	8.87861	24.319	---	---	---	0.365091332

TABLE 3: Genes down-regulated in Stage 3 Prostate Cancer

16653927	8.87861	24.319	---	---	---	0.365091332
17105862	32.5641	89.44	NM_198465	NRK	NM_198465	0.364087309
16992197	13.8991	38.19	NM_012188	FOXI1	NM_012188	0.363942724
16854425	42.8531	117.85	NM_031422	CHST9	NM_031422	0.363614619
17022610	15.5465	42.87	---	---	---	0.362643991
16698984	15.9967	44.134	NM_002497	NEK2	NM_002497	0.362453919
16664388	92.1871	254.42	NM_178033	CYP4X1	NM_178033	0.362335614
16754269	13.2206	36.488	NM_013381	TRHDE	NM_013381	0.362329748
16656357	6.46351	17.843	---	---	---	0.36224464
16718687	18.0377	49.971	BC021737	C10orf82	BC021737	0.360966481
17125582	4.1281	11.44	---	---	---	0.36084501
16654749	29.3531	81.353	---	---	---	0.36081116
16651375	18.4122	51.049	---	---	---	0.360677877
16882812	6.79725	18.866	---	---	TCONS_I2_00013	0.360297514
16678132	12.9853	36.04	---	---	---	0.360297388
17124818	23.8432	66.179	---	---	---	0.360285597
16655011	18.8262	52.351	---	---	---	0.359616968
16656783	2.23105	6.2286	---	---	---	0.358194458
16966621	180.011	502.88	NM_025087	CWH43	NM_025087	0.357964234
16654201	93.8531	262.35	---	---	---	0.357735815
16653149	8.79383	24.59	---	---	---	0.357617806
16983157	113.811	318.35	NR_003689	SNORD123	NR_003689	0.357503826
16650387	22.9024	64.194	---	---	---	0.356768746
16650573	6.61475	18.577	---	---	---	0.356066412
16650455	31.5679	88.684	---	---	---	0.355958534
16656403	9.31443	26.182	---	---	---	0.355750856
16654937	19.8646	55.928	---	---	---	0.355181836
16961197	4.81183	13.605	---	---	---	0.353682152
16650051	6.84938	19.367	---	---	---	0.353654563
16653733	32.8656	92.966	---	---	---	0.35352112
16972108	16.4232	46.466	---	---	TCONS_I2_00021	0.353446888
16810017	8.59691	24.333	---	---	---	0.35329606
16685150	17.4416	49.428	---	---	---	0.352871782
16656635	130.284	369.62	---	---	---	0.352481769
16716124	16.5106	46.849	---	---	---	0.352417985
16651633	4.11553	11.695	---	---	---	0.351911663
16745155	10.3189	29.353	---	---	---	0.351544231
16735829	79.8531	227.85	---	---	---	0.350458936
16929388	30.3494	86.764	---	---	TCONS_I2_00018	0.34979121
16951148	11.4367	32.744	---	---	---	0.349277987
17125720	13.9824	40.088	---	---	---	0.348792175
16653823	2.48457	7.1241	---	---	---	0.348757176
16662394	6.87659	19.769	---	---	ENST0000036467	0.347845777
16654493	4.8499	13.975	---	---	---	0.347052745
16654579	8.21363	23.675	---	---	---	0.34693246
16656147	3.65647	10.548	---	---	---	0.346661111
17123600	26.0624	75.188	---	---	---	0.346630996
16653241	14.5082	42.093	---	---	---	0.344666049
17116675	7.36012	21.408	---	---	TCONS_00017661	0.343804016

TABLE 3: Genes down-regulated in Stage 3 Prostate Cancer

17094177	5.17729	15.145	---	---	---	0.341845586
16654927	3.95812	11.598	---	---	---	0.341275529
16900528	40.8531	119.85	---	---	---	0.340859853
16653153	14.0569	41.451	---	---	---	0.339119564
16655765	6.72949	19.911	---	---	---	0.337979661
16650105	7.5791	22.438	---	---	---	0.337776136
17008651	8.20673	24.307	---	---	---	0.337626712
16653705	29.8501	88.429	---	---	---	0.337562057
16657041	13.3093	39.448	---	---	---	0.337387945
16656257	4.86716	14.456	---	---	---	0.336680056
16693414	14.2798	42.416	NM_002964	S100A8	NM_002964	0.33666378
16652307	7.52407	22.355	---	---	---	0.3365665
16656913	8.69359	25.853	---	---	---	0.33626546
16650055	13.7649	40.951	---	---	---	0.336132057
16824588	55.0563	164.12	NM_001007240	GP2	NM_001007240	0.335465912
16650609	3.35961	10.037	---	---	---	0.334710422
16808609	58.6966	175.43	NM_144565	DUOXA1	NM_144565	0.334594797
16653629	3.67076	10.987	---	---	---	0.334092485
16862790	331.713	997.07	NM_020406	CD177	NM_020406	0.332687408
16654607	5.2648	15.864	---	---	---	0.331878268
16654473	5.02165	15.136	---	---	---	0.331763788
16655611	12.7823	38.647	---	---	---	0.330748624
16654905	8.06057	24.39	---	---	---	0.330481879
16800665	10.4672	31.748	---	---	ENST0000038478	0.329692091
16655941	7.84633	23.833	---	---	---	0.329222419
16961106	11.1637	33.965	NM_001041	SI	NM_001041	0.328679471
16769861	5.61466	17.113	---	---	---	0.328100048
17118039	13.5087	41.244	---	---	---	0.327530571
16652919	12.4451	38.019	---	---	---	0.327334466
16656541	21.3815	65.422	---	---	---	0.326826664
16873990	4.86716	14.955	---	---	---	0.32544725
16676513	14.7547	45.337	---	---	AK055340	0.325447067
16657023	51.6262	159.45	---	---	---	0.323784135
16654317	4.79813	14.845	---	---	---	0.32320638
16711463	2.56754	7.9462	---	---	---	0.323115688
17100649	5.68981	17.637	---	---	NC_001807	0.322608603
16655593	6.52709	20.246	---	---	---	0.322395873
16654501	3.24323	10.061	---	---	---	0.322350515
16653091	17.7778	55.227	---	---	---	0.321901395
17022588	170.893	531.7	NM_015076	CDK19	NM_015076	0.321411114
16771558	6.84938	21.357	---	---	---	0.320701947
17095324	44.3531	138.35	---	---	---	0.320579011
16656315	2.24387	7.016	---	---	---	0.319820355
16656269	2.24387	7.016	---	---	---	0.319820355
16974358	6.08171	19.027	---	---	TCONS_00009021	0.319642784
16977341	6.84938	21.436	---	---	---	0.319521849
16651613	8.03538	25.152	---	---	---	0.319472504
16656969	13.5543	42.514	---	---	---	0.318817028
16656981	3.28962	10.329	---	---	---	0.318468579

TABLE 3: Genes down-regulated in Stage 3 Prostate Cancer

16654099	21.6599	68.275	---	---	---	0.317246231
16977286	56.4643	178.28	NM_006259	PRKG2	NM_006259	0.316721347
17092744	8.2316	26.167				0.314584033
17020497	4.65994	14.856	---	---	---	0.313674426
16758621	24.8537	79.853				0.311242191
16678332	19.3674	62.353				0.310608935
16658946	4.24043	13.688				0.30979925
16788653	32.4069	105.14	NR_003201	SNORD114-9	NR_003201	0.308233908
16811884	22.4518	72.852	NR_003136	FBXO22OS	NR_003136	0.308183577
16912362	107.58	349.32	NM_181353	ID1	NM_181353	0.30797041
17092745	31.7988	103.52				0.307187688
17119284	3.14377	10.277	---	---	---	0.305906147
17068610	2.0888	6.8494				0.304962099
16854466	46.6163	152.93	NM_001941	DSC3	NM_001941	0.304823888
16656713	16.6822	54.729	---	---	---	0.304814616
16656423	10.0941	33.173	---	---	---	0.304289698
16651597	10.0839	33.152	---	---	---	0.304169021
16650015	4.34398	14.287	---	---	---	0.304048684
16656847	11.8317	38.976	---	---	---	0.30356156
16652489	8.05894	26.617	---	---	---	0.302774507
16653407	3.52748	11.677	---	---	---	0.302093817
16653305	3.52748	11.677	---	---	---	0.302093817
16651571	5.53001	18.378	---	---	---	0.300899432
16657183	8.35054	27.827	---	---	---	0.300088044
16988359	158.083	527.15	---	---	---	0.299883012
16678339	25.8534	86.353				0.29939122
16652831	15.9189	53.353	---	---	---	0.298369354
16790467	21.1941	71.066				0.298230967
16872978	282.353	951.35	---	---	TCONS_I2_00013	0.296791202
16651273	4.4345	14.955	---	---	---	0.296516818
16652879	2.71444	9.1728	---	---	---	0.295922656
16660156	33.1852	112.22	NM_032880	IGSF21	NM_032880	0.295718721
16650517	3.33642	11.297	---	---	---	0.295336731
16654681	7.43611	25.296	---	---	---	0.293965767
16656061	5.54022	18.859	---	---	---	0.293762981
16650023	3.15565	10.761	---	---	---	0.29326167
17122918	36.5236	124.58	---	---	---	0.293162494
16657079	5.97174	20.421	---	---	---	0.292426361
16657091	4.4345	15.17	---	---	---	0.292319847
16656039	3.53672	12.115	---	---	---	0.291937599
16650295	5.18904	17.779	---	---	---	0.291862182
16949905	27.8387	95.453	---	---	---	0.291648285
16650291	10.9295	37.538	---	---	---	0.291158226
16678136	11.2381	38.645				0.29080748
16852812	20.2577	69.731	NM_002639	SERPINB5	NM_002639	0.290510727
16735150	6.22757	21.499				0.289669638
17096669	11.8956	41.085	NM_133445	GRIN3A	NM_133445	0.289539012
16961056	51.2772	177.34	NM_001040100	C3orf57	NM_001040100	0.289152531
16897450	20.5257	72.022	NM_001135659	NRXN1	NM_001135659	0.284992084

TABLE 3: Genes down-regulated in Stage 3 Prostate Cancer

16966967	8.68972	30.495	---	---	---	0.284952758
16936925	39.2227	137.74	NM_020873	LRRN1	NM_020873	0.284755049
16653055	10.5216	37.069	---	---	---	0.283837781
16656617	56.0059	197.55	---	---	---	0.283506887
16654939	12.8882	45.505	---	---	---	0.28322819
16911201	15.5304	54.893	NM_001819	CHGB	NM_001819	0.282918553
16811886	45.0166	159.35	NM_138573	NRG4	NM_138573	0.282494624
17018403	2.25994	8.0067	---	---	---	0.282257662
16681989	14.6555	51.968	---	---	ENST0000043978	0.282008726
16829728	21.8522	77.557	NM_000049	ASPA	NM_000049	0.281757621
16655737	2.74018	9.7336	---	---	---	0.281517945
16706419	17.6827	62.921	---	---	---	0.281029307
16735842	4.04858	14.456	---	---	---	0.280056003
16928965	7.10642	25.415	---	---	---	0.279618426
16900441	50.9241	183.01	NM_004418	DUSP2	NM_004418	0.278251918
16650423	10.4894	37.713	---	---	---	0.278135064
16656827	10.3189	37.486	---	---	---	0.275273014
16998941	4.47485	16.269	---	---	ENST0000050626	0.275054352
16803469	59.9087	218.51	NM_018602	DNAJA4	NM_018602	0.274169831
16653147	19.2734	70.355	---	---	---	0.273946473
16654767	12.1893	44.635	---	---	---	0.273089771
16872276	28.5722	104.69	NM_003890	FCGBP	NM_003890	0.2729276
16770448	9.50218	34.92	---	---	---	0.272112899
16653743	15.1349	56.13	---	---	---	0.269638578
16650421	49.6883	184.55	---	---	---	0.269232895
16655599	6.69157	24.916	---	---	---	0.268565367
17093313	18.8418	70.271	---	---	ptenp1	0.268130551
16780893	21.3031	79.583	---	---	BC043519	0.267683345
16926772	48.0498	181.02	---	---	ENST0000044416	0.265444842
16656093	5.6622	21.357	---	---	---	0.265115983
16859148	25.8834	97.698	NM_007253	CYP4F8	NM_007253	0.264931893
16956194	10.6057	40.046	NR_031697	MIR1284	NR_031697	0.264839796
16655837	7.19995	27.205	---	---	---	0.26465414
16950825	61.6649	235.67	NM_003256	TIMP4	NM_003256	0.261661765
16657095	10.5177	40.28	---	---	---	0.261110798
16653039	3.56363	13.711	---	---	---	0.25991067
17056825	10.271	39.573	BC030554	TARP	BC030554	0.259546531
16654671	8.18143	31.573	---	---	---	0.259127425
16651309	3.90913	15.107	---	---	---	0.258764947
16751994	3.24323	12.581	---	---	---	0.2577935
17083793	39.2943	152.55	NM_001040272	ADAMTSL1	NM_001040272	0.25758305
17073213	43.4044	168.58	NR_033343	PSCA	NR_033343	0.257463213
16650147	4.04858	15.919	---	---	---	0.254325071
16690969	9.48594	37.353	---	---	---	0.253953219
17059828	11.0369	43.694	NM_006528	TFPI2	NM_006528	0.252597008
16656679	15.9946	63.389	---	---	---	0.252321876
16655427	5.60277	22.295	---	---	---	0.251306439
16656931	6.84938	27.353	---	---	---	0.250404888
16785104	16.4846	66.064	NM_031914	SYT16	NM_031914	0.249523193

TABLE 3: Genes down-regulated in Stage 3 Prostate Cancer

16663446	5.1518	20.783	---	---	ENST0000036237	0.247884812
16897487	2.96419	11.982	---	---	---	0.247393644
16755531	3.38237	13.688				0.24711054
16876667	8.23161	33.328				0.246984778
16772172	203.492	828.86	NM_021009	UBC	NM_021009	0.245507377
16656615	53.8444	219.33	---	---	---	0.245490659
16999870	195.687	797.13	NM_001172700	SHROOM1	NM_001172700	0.245489408
16974011	14.4369	59.417	NM_001099433	JAKMIP1	NM_001099433	0.242974622
16706427	7.61458	31.62				0.240817255
16835635	4.04858	16.894				0.239644586
16906031	39.6667	165.6	NM_152520	ZNF385B	NM_152520	0.239538565
17017174	8.69359	36.353				0.239143072
16655249	5.65464	23.788	---	---	---	0.237707303
16652115	10.7571	45.364	---	---	---	0.237129549
17075589	15.8498	66.884	NM_006158	NEFL	NM_006158	0.236974723
16767081	40.3178	171.18	NM_007191	WIF1	NM_007191	0.2355221
16654871	9.01471	38.722	---	---	---	0.232804387
16654679	27.5123	118.41	---	---	---	0.232347829
16653065	8.94462	38.862	---	---	---	0.230161923
16692614	4.68382	20.425	NM_001123375	HIST2H3D	NM_001123375	0.229313824
16910589	27.1661	118.52	NM_207469	DEFB132	NM_207469	0.229207707
16967327	7.25057	31.816	NM_014058	TMPRSS11E	NM_014058	0.227891329
16678343	6.2286	27.353				0.227709937
16653789	7.79011	34.342	---	---	---	0.226839594
17122142	787.285	3502	---	---	---	0.224812505
16968312	216.29	968.81	---	---	---	0.223253995
16993425	20.3612	91.853				0.221670726
16790255	6.2286	28.353				0.219679295
16835637	7.52407	34.853				0.215879563
17075920	17.9392	83.887	---	---	---	0.213850672
17011664	32.0002	151.31	---	---	---	0.211485799
17092748	8.32269	39.388				0.211301023
16693526	10.3189	48.853				0.211223443
16651193	9.12211	43.522	---	---	---	0.20959556
16771468	4.04858	19.367				0.209040745
17068615	9.48594	46.353				0.204645256
16751999	12.5807	62.353				0.201766071
16651031	3.79237	18.865	---	---	---	0.201031031
16656153	6.93566	34.667	---	---	---	0.200064557
16859166	10.1995	51.53	NM_023944	CYP4F12	NM_023944	0.197931852
16656651	6.84938	34.853	---	---	---	0.196521314
16656619	21.3727	108.99	---	---	---	0.196096012
16653061	11.3939	58.497	---	---	---	0.194775024
16655523	2.79136	14.564	---	---	---	0.191664653
16656289	11.3976	59.602	---	---	---	0.191227413
16652875	13.2034	70.054	---	---	---	0.188474016
16656015	13.0462	69.471	---	---	---	0.187792919
16906089	13.1318	71.233	---	---	---	0.184349488
16805995	10.5497	57.4	---	---	---	0.183794102

TABLE 3: Genes down-regulated in Stage 3 Prostate Cancer

16654391	4.17134	22.781	---	---	---	0.183103006
16656247	2.82421	15.495	---	---	---	0.182260341
16654487	6.81241	37.411	---	---	---	0.182095968
16698502	37.8382	211.67	---	---	---	0.178762811
16656607	43.9832	251.08	---	---	---	0.175174535
16745561	162.85	932.45	---	---	---	0.17464698
16744585	5.56491	32.339	NM_152315	FAM55A	NM_152315	0.172078762
16771531	4.86716	28.353	---	---	---	0.171661985
16656603	4.4345	25.853	---	---	---	0.1715249
16968307	136.154	806.33	NR_026555	GDEP	NR_026555	0.168856087
16673840	70.6938	419.46	---	---	---	0.168534858
17083845	5.76557	36.864	---	---	ENST0000051715	0.156402214
16735833	35.3531	227.85	---	---	---	0.155157492
16790138	14.381	93.802	---	---	AK026285	0.153312867
17084374	9.16752	59.874	---	---	---	0.1531148
17020258	31.1453	204.57	NM_021073	BMP5	NM_021073	0.152249232
16650169	5.05245	33.713	---	---	---	0.149864505
17020059	11.5149	77.374	NM_000846	GSTA2	NM_000846	0.148820521
16789823	6.99655	47.319	---	---	BC015119	0.147857638
16771533	4.4345	30.353	---	---	---	0.146096891
16977810	11.4755	78.582	NM_178135	HSD17B13	NM_178135	0.146031581
16844735	23.8228	165.57	NM_153490	KRT13	NM_153490	0.143881982
16656639	64.0746	446.44	---	---	---	0.143524513
16888229	32.9091	237.35	---	---	---	0.138650689
17009989	3.51745	25.379	---	---	---	0.138599132
16781648	13.7997	104.2	NM_014579	SLC39A2	NM_014579	0.132431439
16821186	11.5751	89.039	NM_005752	CLEC3A	NM_005752	0.130000478
16938645	9.56817	73.627	---	---	---	0.129953918
16656609	13.6877	111.69	---	---	---	0.122545255
16886806	8.37938	68.485	NM_00101792C	DAPL1	NM_001017920	0.122354193
17009219	30.6917	251.43	---	---	---	0.122070117
17118860	270.367	2236.1	---	---	---	0.120908221
16809872	17.4595	146.24	---	---	---	0.119387685
16990124	4.86716	41.853	---	---	---	0.11629143
16873190	34.9844	303.99	NM_001102597	CEACAM20	NM_001102597	0.11508526
16656661	80.8531	708.35	---	---	---	0.114142303
17020069	30.7372	270.55	NM_145740	GSTA1	NM_145740	0.113609429
16688386	8.31214	73.184	NM_00111412C	DEPDC1	NM_001114120	0.113578084
16681986	5.23487	47.836	---	---	AK055853	0.109432777
16656365	4.04858	38.353	---	---	---	0.105560776
16656653	5.01089	48.755	---	---	---	0.102777474
16656637	100.159	1030.9	---	---	---	0.097158633
17095327	3.52748	37.353	---	---	---	0.094435991
16869919	22.381	241.27	---	---	TCONS_0002720	0.092762895
16781423	2.84888	30.936	---	---	---	0.092088406
16656627	21.093	243.64	---	---	---	0.086574312
16656625	21.6537	271.14	---	---	---	0.079861297
16656645	21.4301	269.83	---	---	---	0.079420414
16656631	55.2423	719.1	---	---	---	0.076821157

TABLE 3: Genes down-regulated in Stage 3 Prostate Cancer

16887010	10.7754	140.67	---	---	ENST0000041896	0.076600668
16877318	8.69359	114.85	---	---	TCONS_00003581	0.075693159
16852849	40.2602	550.43	NM_080475	SERPINB11	NM_080475	0.07314271
16656623	25.0872	346.64	---	---	---	0.072372787
16744602	16.9909	236.93	NM_001077639	FAM55D	NM_001077639	0.071714189
16656657	33.0366	466.29	---	---	---	0.070849745
16656647	49.361	712.8	---	---	---	0.06924903
16873204	13.3847	196.08	---	---	TCONS_I2_00013	0.068261563
16656665	14.3884	225.43	---	---	---	0.063825701
16775083	42.0107	659.24	NM_006418	OLFM4	NM_006418	0.063725796
16656643	20.8279	333.68	---	---	---	0.06241899
16946280	24.9484	415.38	NM_022131	CLSTN2	NM_022131	0.060061471
16656641	40.0087	669.33	---	---	---	0.059774216
17018396	5.6622	94.853	---	---	---	0.059694448
16838249	22.8199	391.11	---	---	TCONS_00025131	0.058346925
16656629	29.1429	521.81	---	---	---	0.055849803
16656663	12.8389	242.21	---	---	---	0.053008222
16656649	12.1203	243.19	---	---	---	0.049838728
16940012	250.172	5124	NM_003241	TGM4	NM_003241	0.048823623
16656621	5.45773	138.86	---	---	---	0.039303895
16656633	10.449	318.04	---	---	---	0.032854283
16656655	3.25424	113.61	---	---	---	0.028642713
16656659	6.02386	215.79	---	---	---	0.027915161
17122144	6.2387	259.35	---	---	---	0.024054931
16940033	11.8262	638.68	---	---	ENST0000042725	0.018516648